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Virginia Commonwealth University Graduate and Professional Programs Bulletin [2014]

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2014-15 Graduate and Professional Programs Bulletin

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Located in the heart of Richmond, the capital of Virginia since 1779, Virginia Commonwealth University serves an integral role in the economic health of the city and the state, educating the current and future work force, reaching out to the community, advancing research and enhancing patient care.

VCU was founded in 1838 as the medical department of Hampden-Sydney College, becoming the Medical College of Virginia in 1854. In 1968, the General Assembly merged MCV with the Richmond Professional Institute, founded in 1917, to create Virginia Commonwealth University.

Today, VCU offers comprehensive undergraduate, master's, doctoral and professional programs and encompasses one of the largest academic health centers in the nation. With a record \$248 million in sponsored research funding for the 2012-13 fiscal year, VCU became one of only 28 public universities in the country with an academic medical center to be designated as a research university with very high research activity as well as a Community Engaged Institution, both by the Carnegie Foundation. Its centers and institutes of excellence support the university's research mission and involve faculty from multiple disciplines in the arts, public policy, biotechnology and health care discoveries.

VCU enrolls more than 31,000 students in 222 degree and certificate programs in the arts, sciences and humanities. Sixty-seven of the programs are unique in Virginia, many of them crossing the disciplines of VCU's 13 schools and one college. VCU has a full-time instructional faculty of more than 2,100 who are nationally and internationally recognized for excellence in the arts, business, education, engineering, the humanities, the life sciences, social work and all the health care professions. With more than 20,000 employees, VCU and the VCU Health System also have a significant impact on Central Virginia's economy.

Building on the foundation of VCU's nationally ranked academic programs and academic medical center, research and scholarly productivity, and engagement with the communities it serves, the university's strategic plan, Quest for Distinction, launches a new vision for VCU: to elevate its stature and become the nation's top urban, public research university. This focused plan capitalizes on the outstanding assets of the VCU experience and truly distinguishes VCU as a major research university committed to academic quality and student success at all levels

Quest for Distinction also embodies VCU's commitment to human health through the VCU Medical Center, which includes the university's health sciences schools and offers state-of-the-art care in more than 200 specialty areas, many of national and international note, including organ transplantation, head and spinal cord trauma, burn healing and cancer treatment.

VCU and the VCU Health System have been honored with prestigious national and international recognition for top-quality graduate, professional and medical-care programs, reflecting a commitment to be among America's top research universities focused on student learning.

Administration

VCU administration provides leadership and organizational structure for the university, overseeing its goals and mission. Refer to each unit's Web site for a current listing of administrators.

Deans

Deans provide leadership for their respective school or college. Refer to each unit's Web site for a current listing of its deans, departmental chairs and program heads.

Accreditation

Virginia Commonwealth University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award baccalaureate, master's, doctoral and first professional degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097; telephone: (404) 679-4500. Note: The Commission is to be contacted **only** if there is evidence that appears to support an institution's significant noncompliance with a requirement or standard.

Academic program accreditation

See the college/schools for detailed information about program accreditation.

Specialized program accreditation or certification

Campus Police

Police Academy

Certified by the Virginia Department of Criminal Justice Services

Division of Student Affairs and Enrollment Services

University Counseling Services

American Psychological Association

Student Health Services

Joint Commission on Accreditation of Health Care Organizations

Hospital accreditation

VCU Health System

Joint Commission on Accreditation of Health Care Organizations

Mission statement

As the premier urban, public research university in Virginia, VCU's mission is to advance knowledge and student success through its commitments to:

- An engaged, learner-centered environment that fosters inquiry, discovery and innovation in a global setting
- Research that expands the boundaries of new knowledge and creative expression and promotes translational applications to improve human health
- Interdisciplinary collaborations that bring new perspectives to complex problems and mobilize creative energies that advance innovation and solve global challenges
- Health care that strives to preserve and restore health for all people, to seek
 the cause and cure of diseases through groundbreaking research, and to
 educate those who serve humanity
- Diversity that provides a climate of inclusion, a dedication to addressing disparities wherever they exist, and an opportunity to explore and create in an environment of trust
- Sustainable, university-community partnerships that enhance the educational, economic and cultural vitality of the communities VCU serves in Virginia and around the world

Vision statement

VCU will be a premier urban, public research university distinguished by its commitment to:

- The intellectual and academic success of a diverse student body
- Research and discovery that advances knowledge, inspires creativity and improves human health
- The global engagement of students, faculty and staff that transforms lives and communities

Core values

- Accountability committing to the efficient and transparent stewardship of our resources to achieve institutional excellence
- Achievement ensuring distinction in learning, research and scholarly pursuits, service, and patient care
- Collaboration fostering collegiality and cooperation to advance learning, entrepreneurship and inquiry
- Freedom striving for intellectual truth with responsibility and civility, respecting the dignity of all individuals
- Innovation cultivating discovery, creativity, originality, inventiveness and talent
- Service engaging in the application of learning and discovery to improve the human condition and support the public good at home and abroad
- Diversity ensuring a climate of trust, honesty and integrity where all people are valued and differences are recognized as an asset
- Integrity adhering to the highest standards of honesty, respect and professional and scholarly ethics

Oak Ridge Associated Universities Consortium

Since 1963, students and faculty have benefited from VCU's membership in Oak Ridge Associated Universities (ORAU), a consortium of 87 colleges and universities and a contractor for the U.S. Department of Energy. ORAU works with its member institutions to help students and faculty gain access to federal research facilities, to keep its members informed about opportunities for scholarship and research appointments and to organize research alliances among its members.

Faculty, graduate students and undergraduate students may access a wide range of opportunities for study and research, including the Lindau-Nobel Laureates and Powe Junior Faculty programs. Many of these programs are designed to increase the numbers of underrepresented minority students pursuing degrees in science-and engineering-related disciplines.

For more information about ORAU and its programs, contact:

Dr. Francis L. Macrina, ORAU Councilor for VCU (804) 827-2262

Ms. Monnie E. Champion, ORAU Corporate Secretary (865) 576-2206

Or you may visit the ORAU Web site at www.orau.org.

VCU Health System Authority

In April 1996, Gov. George Allen signed legislation that established the Medical College of Virginia Hospitals Authority. Effective July 1, 1997, the operations, employees and obligations of MCV Hospitals (formerly a division of VCU) were transferred to the Authority. Three years later, in connection with legislation signed by Gov. James Gilmore, the MCV Hospitals Authority became the Virginia Commonwealth University Health System Authority. The clinical activities of MCV Hospitals, MCV Physicians and the VCU School of Medicine are now coordinated and integrated by and through the VCU Health System.

The VCU Health System Authority is charged by statute with the missions of operating MCV Hospitals as teaching hospitals for the benefit of the schools of the Health Sciences Division of VCU, providing high quality patient care and providing a site for medical and biomedical research, all of which missions are required to be performed in close affiliation with the Health Sciences Division. The VCU Vice President for Health Sciences also serves as the Chief Executive Officer of the VCU Health System Authority, and five VCU faculty physicians serve as members of the Health System Board of Directors.

Board of Visitors

The Board of Visitors is the voting body of Virginia Commonwealth University. Each year, the governor of Virginia appoints members. Refer to Office of the President's Web site for a current listing of board members.

Determination of student classification for instate tuition purposes

Tuition is determined by the number of credit hours a student is taking, the student's residency classification, course of study and classification level. For instate tuition benefits, the student must comply with Section 23-7.4 of the Code of Virginia.

All applicants to VCU who wish to be considered for in-state tuition rates as Virginia residents must submit the Application for Virginia In-state Tuition Rates. This application is a part of the admissions packet and the nondegree-seeking student enrollment package. The residency determination of the applicant is conveyed at the time of admission as a degree-seeking student or nondegree-seeking student.

New and continuing students initially classified as non-Virginians for tuition purposes may request a review of the initial residency determination by completing an Application for Change of Domicile available from the Office of Records and Registration (online). The student must present clear and convincing evidence that he or she is not residing in the state primarily to attend school. The application deadline is 30 days prior to the start of the semester, and it is the responsibility of the student to establish or to file an appeal to change his/her residency classification prior to the start of classes for the semester under

consideration. In accordance with the Code of Virginia, applications received after the start of the semester must be considered for the next semester. Submit completed applications with documentation to the university residency appeals officer. Processing may require four to six weeks; therefore it is strongly recommended that applications be submitted earlier than the stated deadline.

Our service to students is limited to assuring that they understand the procedures for appealing and that they have access to information about the relevant sections of the Code of Virginia. We provide information about the steps of our process and access to the applicable sections of the statute and the associated guidelines. We provide qualified staff to review the appeals and make decisions based on the information students provide. What we cannot do is provide advisement to students as to how to present their case for review; we cannot become the student's advocate since we must make the decision.

Students approved for a change to in-state status for tuition purposes are notified by mail with copies of their approval letters sent to the Office of Financial Aid and the Office of Student Accounting. Students denied this status are also notified by mail. The denial letter informs the student of procedures for appeal of this decision, to include filing an appeal with the University Residency Appeals Committee. Students who submit fraudulent applications, falsify documentation or conceal information will be subject to reclassification, payment of all nonresident fees owed and university discipline.

Please note that a student with in-state status for tuition purposes who exceeds 125 percent of the credit hours needed to complete his program will be assessed a tuition surcharge.

Rights of students under the Family Educational Rights and Privacy Act

Pursuant to a federal statute enacted to protect the privacy rights of students (Family Educational Rights and Privacy Act of 1974 [FERPA], as amended, enacted as Section 438 of the General Education Provisions Act), eligible students of Virginia Commonwealth University are permitted to inspect and review education records of which the student is the subject. A statement of university policy concerning inspection and disclosure of education records has been formulated in compliance with the federal statute. Copies of the policy also are available from the Office of Records and Registration or on the Web at www.enrollment.vcu.edu/rar/registration/ferpa.html.

Generally, the act provides that no personally identifiable information will be disclosed without the student's consent, except for directory information and information to other school officials with a legitimate educational interest. When personally identifiable information, other than directory information, is disclosed, a record will be maintained of these disclosures. This record also is available for inspection and review by the student.

If an eligible student feels that his or her education record is inaccurate, misleading or otherwise in violation of the student's privacy or other rights, the student may request an amendment to the record.

Should the university fail to comply with the requirements of the act, the student has the right to file a complaint with the Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Ave., S.W., Washington, D.C. 20202-5901

Parental Notification Amendment

Amendments to FERPA signed into federal law in fall 1998 specifically allow notification to the parents or guardians of students under the age of 21 who violate any law or university rule regarding use or possession of alcohol or other controlled substance. The Virginia Attorney General's Task Force on Drinking by College Students also recommended such notification in its 1998 report.

In accordance with these documents, a parental notification procedure has been included in the VCU Drug Free Schools and Workplace Policy.

Consumer information

The federal Higher Education Act of 1965, as amended, requires that institutions of higher education disclose certain consumer information to current students, prospective students, current employees and/or prospective employees. This consumer information can be found online at www.consumerinfo.vcu.edu.



2014-15 Graduate and Professional Programs Bulletin

Graduate School and graduate study

Graduate programs are administered by the individual departments, schools and centers with assistance from the Graduate School. Major coordination of the various degree programs is performed by the University Graduate Council, which is chaired by the dean of the Graduate School. The University Graduate Council is comprised of two elected faculty members from each school and one elected faculty member from VCU Life Sciences.

The Graduate School section of the VCU Bulletins documents the official admission and academic rules and regulations that govern graduate education at the university. The University Graduate Council determines these policies.

The archived copies of current and past bulletins (catalogs) reflect all policies and procedures in effect at the beginning of the stated academic year. The online Bulletin is updated regularly to reflect changes that occur throughout the academic year.

Graduate programs

In-depth descriptions of all graduate programs at VCU are provided in the individual school and program sections of this bulletin. The Graduate School Web site (www.graduate.vcu.edu) provides links and contact information for all graduate programs offered at VCU. The Web site also provides updates that occur throughout the academic year, as well as the Application to Graduate Study and complete instructions for applying to all graduate programs.

Refer to the Program Search feature of this Web site for a complete listing of all graduate programs, as well as application deadline dates, and special admission requirements and contact information. Applicants are encouraged to contact the school/department sponsoring the intended program of study at the telephone numbers and/or e-mail addresses provided. Other important contact information is provided on the Graduate School Web site as well.

Welcome from the graduate dean – Important information for all graduate students

On behalf of the graduate faculty, I welcome you to graduate study at Virginia Commonwealth University. At VCU you will find a comprehensive array of academic programs, outstanding faculty and a supportive environment conducive to graduate study and research. The university offers nationally and internationally acclaimed graduate and research programs that meet the many needs of the commonwealth of Virginia, the United States and the world.

The University Graduate Council, chaired by the dean of the Graduate School, provides academic and administrative oversight and coordination of all graduate programs in accordance with the Graduate School's mission: to provide leadership in all matters relating to graduate education at Virginia Commonwealth University in order to create a stimulating environment for teaching, learning, research, creative expression and public service. Academic departments and schools administer individual graduate degree programs with the assistance and support of the VCU Graduate School. In-depth descriptions of all graduate programs at VCU are provided in the individual school and program sections of this bulletin.

VCU Graduate Bulletin (catalog)

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the Graduate Bulletin as well as the academic regulations in individual school and department publications and on program websites; however, in all cases, the official policies and procedures of the University Graduate Council, as published on this Graduate Bulletin website and on the Graduate School website, take precedence over individual program policies and guidelines.

The archived copies of current and past bulletins (catalogs) reflect all policies and procedures in effect at the beginning of the stated academic year. The online Bulletin is updated regularly to reflect changes that occur throughout the academic year.

Students who maintain continuous enrollment are subject to the curricular requirements of the bulletin in effect at the time of admission, and to subsequent policy changes approved by the University Graduate Council for immediate implementation.

Students who do not maintain continuous enrollment must reapply for admission and will be subject to the requirements of the bulletin in effect at the time of readmission, and to subsequent policy changes approved by the University Graduate Council for immediate implementation. (See policy on Exceptions.)

Graduate students should contact the Graduate School at any time regarding questions relating to graduate study at VCU.

I commend you for your decision to pursue graduate study, and I wish you every success in the pursuit of your educational goals at Virginia Commonwealth University.

Sincerely,

F. Douglas Boudinot Dean of the Graduate School

Revised 5/11/2010 University Graduate Council

Administration and contact information

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Admission to graduate study

The Board of Visitors, the administration and the faculty of VCU are committed to a policy of equal opportunity in education and employment without regard to age,

race, color, national origin, gender, religion, sexual orientation, veteran's status, political affiliation or disability.

Admission requirements

Minimum admission requirements for graduate study at VCU are outlined below. Individual departments and programs may set more stringent requirements as described in relevant sections of the Graduate Bulletin. Each department/program determines how to evaluate the individual requirements in a holistic assessment of the applicant's potential for success in graduate study in a particular field. Additional factors, such as prior professional experience, may also be taken into consideration

- Graduation from a regionally accredited college or university or its
 equivalent. Departments may admit graduate applicants with three-year
 bachelor's degrees provided these three-year degrees allow the students to
 pursue graduate studies in their countries. Further, the department will require
 prerequisite/foundation courses as needed to fill in any gaps in the student's
 educational background.
- Required grade point average. For admission to graduate study at VCU, the Graduate School requires a minimum undergraduate GPA of 3.0. For students with earned graduate degrees from accredited institutions, the graduate GPA may be the primary basis for consideration.
- 3. **Test scores.** Standardized graduate-level test scores (fewer than five years old) as determined by the individual program/department. Note: Not all programs require standardized test scores. See relevant sections of the Graduate Bulletin for individual program requirements.
- Letters of recommendation. Three letters of recommendation from instructors or professional references in the applicant's intended field of study. Letters should address the applicant's academic and professional abilities and preparation for graduate study.
- Statement of intent. A statement of the applicant's reasons for pursuing graduate education in the planned course of study at VCU.
- Such additional requirements as may be established by individual programs and schools. These may include personal interviews, auditions, submission of a portfolio or other materials.

An exception to the general admissions requirements is made for students entering through the Guaranteed Admissions Programs of the VCU Honors College. (See the heading "Guaranteed Admission Through The Honors College" in this section.)

Revised 4/8/2014 University Graduate Council

Types of admissions

Students may be admitted to graduate study under one of the following classifications:

Degree-seeking student

An applicant who meets all requirements for admission to a degree program and who has been recommended by the department or school in which the applicant proposes to study may be admitted as a degree-seeking student.

In order to finalize admission, an official transcript showing degree awarded and any other required documentation must be provided by the end of the fourth week of the first semester of matriculation in the program. Holds will be placed by the Graduate School on all future registrations for students who do not submit required documentation by this deadline.

Revised 4/8/2014 University Graduate Council

Nondegree-seeking student

An individual who wishes to take graduate courses without formal admission to a degree program is classified as a nondegree-seeking student. There is no limit to the total number of credits a nondegree-seeking student may take, as long as the student's academic performance is credible. In courses where enrollment is limited, first priority is given to students admitted to the program, followed by other VCU graduate degree-seeking students. Nondegree-seeking students are not exempt from any prerequisite that may be specified for a course. A nondegree-seeking student who is later admitted as a degree-seeking student will not be

allowed to apply toward a degree more than six credits earned as a nondegree-seeking student.

In order to enroll in graduate courses as a nondegree-seeking student, students must have graduated (or be in final term expecting to graduate) from a regionally accredited college or university or its equivalent. Information and forms certifying eligibility to take graduate courses are available at VCU Records and Registration service centers or from the Office of Admissions.

Revised 4/8/2014 University Graduate Council

Entrance examinations

To supplement other evidence of preparation for graduate work, most graduate programs at VCU consider the scores from current (fewer than five years old) standardized tests commonly used and deemed appropriate for a given discipline. Applicants should refer to the individual program screens of this Web site for specific test requirements. Applicants are encouraged to visit individual department and program Web sites and to contact the school/department sponsoring the intended program of study for additional information about specific test score requirements.

Individual exceptions to this requirement may be considered for students with previous graduate degrees and for students entering graduate study through the Guaranteed Admission Programs of the Honors College.

Common examinations used at VCU are the Graduate Record Examination (GRE), the Graduate Management Admissions Test (GMAT), the Law School Admissions Test (LSAT), and the Miller Analogies Test (MAT). These examinations will not replace other records of achievement as a basis for admission to the Graduate School, but will offer additional evidence concerning the qualifications of students wishing to undertake graduate work.

Revised 4/8/2014 University Graduate Council

Guaranteed admission through The Honors College

Active members of The Honors College may apply to The Honors College Guaranteed Admission Program for certain graduate programs either before matriculation at VCU or early in their undergraduate studies. The specific deadline for applying is set by the program. Upon graduation, honors students in the Guaranteed Admission Program may enter the graduate program to which they have applied, provided they have satisfied all of the program requirements.

Interested students should meet with the senior associate dean of The Honors College prior to making application for guaranteed admission to a graduate program. Following that meeting, the student must submit a completed graduate application form with three letters of recommendation to Graduate Admissions. To be accepted into The Honors College Guaranteed Admission Program, a student must be accepted by the university, by the Office of Admissions and by the admissions committee of the program the student wishes to enter. The admissions committee may require an interview. Final notification of guaranteed admission is made by the Office of Admissions.

For additional information, refer to the Honors College section of the Undergraduate Bulletin, or contact The Honors College at P.O. Box 843010, Richmond, VA 23284-3010; (804) 828-1803; or www.honors.vcu.edu.

Revised 4/8/2014

University Graduate Council

Programs that offer guaranteed admission through The Honors College include:

Doctor of Dental Surgery Doctor of Medicine

Doctor of Occupational Therapy

Doctor of Physical Therapy

Doctor of Philosophy

Anatomy and Neurobiology

Biochemistry

Biomedical Engineering

Biostatistics

Human Genetics

Microbiology and Immunology

Neuroscience

Nursing

Pharmacology and Toxicology

Physiology

Psychology

Systems Modeling and Analysis

Master of Accountancy

Master of Arts

Economics

History

Master of Bioinformatics

Master of Business Administration

Master of Education

Adult Learning

Counselor Education

Special Education

Early Childhood Special Education

Emotional Disturbance

Mental Retardation

Learning Disabilities

Severe Disabilities

Master of Environmental Studies

Master of Health Administration

Master of Product Innovation

Master of Public Administration

Master of Public Health

Master of Science

Anatomy

Biochemistry

Bioinformatics

Biomedical Engineering

Biostatistics

Business

Clinical Laboratory Sciences

Computer Science

Criminal Justice

Environmental Studies

Forensic Science

Genetic Counseling

Gerontology

Health and Movement Sciences

Human Genetics

Information Systems

Mathematical Sciences

Microbiology and Immunology

Nursing

Pharmacology and Toxicology

Physics/Applied Physics

Physiology

Rehabilitation Counseling

Sociology

Master of Science in Nurse Anesthesia

Master of Science in Occupational Therapy

Master of Taxation

Master of Teaching

Master of Urban and Regional Planning

Multiple admissions

Students may not be admitted and enrolled in more than one graduate program or in an undergraduate and graduate degree program, except as part of an approved bachelor's-to-master's curriculum without petitioning and receiving written permission from the program director of each program in which the student is enrolled and the dean of the Graduate School.

Revised 4/8/2014

University Graduate Council

International students

The university encourages qualified international students to seek admission to VCU. U.S. government regulations and VCU admission policies require nonimmigrant applicants to demonstrate:

- Satisfactory academic achievement.
- Adequate English language proficiency.

· Ability to finance all educational and living expenses.

International students are advised to refer to university and program admission requirements in this bulletin for other information requested of all applicants. An applicant must have earned a bachelor's degree from an accredited institution in the United States or an equivalent degree from a recognized foreign institution. Official academic records must be submitted.

English language proficiency requirement

To ensure maximum benefit from academic study at VCU, all non-native Englishspeaking applicants, regardless of immigration status, must provide evidence of English language proficiency before admission and/or enrollment in the university.

An applicant may satisfy university English proficiency requirements by obtaining a satisfactory score on the TOEFL. The university minimum TOEFL score requirement is 550 (paper-based) or 80 (Internet-based). Some graduate programs will accept satisfactory scores on the IELTS as evidence of English proficiency. The university minimum IELTS score requirement is 6.5. The PTE is also accepted with a minimum score of 65. Individual programs may require higher scores. TOEFL, IELTS and PTE scores are valid for two years.

The Office of Admissions reserves the right to require additional testing and study in the VCU English Language Program prior to full-time enrollment in university courses. The university offers a full-time English-as-a-Second-Language noncredit program. For information on the VCU English Language Program, including fees, international students can contact the English Language Program, Virginia Commonwealth University, P.O. Box 843043, Richmond, VA 23284-3043, United States; (804) 828-2551, or by email: oie-elp@vcu.edu; or online at www.global.vcu.edu/elp.

Nonimmigrants (students with temporary U.S. visas)

Because of the amount of time required to process applications from international students and for international students to obtain their visas, prospective students should apply well in advance of the international application deadlines. The deadlines are April 1 for fall semester, Oct. 1 for spring semester and Feb. 1 for summer session. Students also must meet specific program deadlines. All required admission documents must be submitted no later than eight weeks prior to registration if appropriate immigration documents are to be issued. Applicants who are unable to meet this credential deadline will need to defer the intended semester of entry.

Revised 4/08/2014

University Graduate Council

As VCU does not generally provide financial support for graduate international students, applicants needing a student visa (F-1) or a visiting scholar visa (J-1) also must present documented evidence of available financial support to cover annual living and educational expenses while studying at VCU.

Proof of current visa type must be submitted with the application for applicants who are in the United States on student visas. F-1 students and J-1 visiting scholars admitted to VCU must submit copies of all immigration documents to the VCU International Student Adviser prior to enrolling in classes.

Immigrants (permanent residents, resident aliens and asylum/refugee applicants)

Because immigrant applicants usually are in the United States at the time applications are submitted, these students are required to meet the same application deadlines as U.S. citizens.

If educated in the United States, immigrant students will be considered for admission under the same academic policies as those applied to U.S. citizens. If educated outside the United States, the same academic records are required as those for nonimmigrant students.

VCU requires detailed information concerning U.S. immigration status. Proof of permanent residency or application for permanent residency must be submitted with the admission application.

Admissions appeals

The Office of Admissions will hold denied applicants' transcripts and test scores for one year. To reapply within this period, applicants should first contact the department or program. Additional materials should be supplied to strengthen the application, such as new test scores, new letters of recommendation or a new statement of intent.

Application procedures

A link to the online application, other supplemental forms and instructions for applying to all graduate programs are available on the Graduate School website at graduate.admissions.vcu.edu/apply.

A \$65 nonrefundable application fee must accompany each application. This fee will not be credited toward tuition payment.

Completed applications and all supporting materials must be submitted according to the application guidelines provided in this bulletin and before the program deadlines specified throughout this bulletin website. Late applications for some programs may be considered when possible but may require provisional action.

Note: Reference letters, the statement of intent/personal essay and any other supplementary materials such as art portfolios, resume/vita or specific program-required documents should be submitted to the address specific to the program to which you are applying. However, some programs require that all application materials be sent directly to the Graduate School.

Click here for instructions on submitting application materials for graduate programs and a list of program-specific addresses for supplemental materials. All transcripts and test scores must be submitted to Graduate Admissions. Supporting documentation submitted by mail should be addressed to Virginia Commonwealth University, Office of Admissions, P.O. Box 843051, Richmond, VA 23284-3051. Application materials submitted in person may be delivered to the Graduate Admissions office on the third floor of Blair House, 408 W. Franklin St., Richmond, Va.

Graduate students must use the Graduate School's online graduate application. Supporting materials for online applications must be submitted promptly. An application cannot be given final consideration until all required documentation and the application fee have been received. Applicants are strongly encouraged to pay by credit card when submitting the online application.

Students are encouraged to apply well before the program deadline to ensure receipt of all application materials. Program deadlines are found with degree/program information elsewhere in this Bulletin. Use the search feature located to the right of this page to find the program(s) of interest.

Completed applications and supporting materials are reviewed by the graduate faculty of the intended program, and final official notification of acceptance is made by the dean of the Graduate School.

Admission to a graduate program may be contingent upon the successful completion of undergraduate course work, degrees or other prerequisites that may be specified by the program or school. Remedial course work will not apply toward a graduate degree.

Students who do not apply at least one month prior to the beginning of any semester risk their financial aid eligibility in the event that the admission process is not completed prior to the first day of classes.

Apply

General academic regulations for all graduate students - VCU Graduate Bulletin (catalog)

The VCU Graduate Bulletin (catalog) website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the Graduate Bulletin (catalog) as well as the academic regulations in individual school and department publications and on program websites; however, in all cases, the official policies and procedures of the University Graduate Council, as published on this Graduate Bulletin website and on the Graduate School website, take precedence over individual program policies and guidelines.

The archived copies of current and past bulletins (catalogs) reflect all policies and procedures in effect at the beginning of the stated academic year. The online Bulletin is updated regularly to reflect changes that occur throughout the academic year.

Students who maintain continuous enrollment are subject to the curricular requirements of the Graduate Bulletin (catalog) in effect at the time of admission,

and to subsequent policy changes approved by the University Graduate Council for immediate implementation.

Students who do not maintain continuous enrollment must reapply for admission and will be subject to the requirements of the Graduate Bulletin (catalog) in effect at the time of readmission, and to subsequent policy changes approved by the University Graduate Council for immediate implementation. (See policy on Exceptions.)

Graduate students should contact the Graduate School at any time regarding questions relating to graduate study at VCU.

Revised 5/11/2010 University Graduate Council

University rules and procedures

VCU seeks to foster insight, imagination, creativity, resourcefulness, diligence, honesty and responsibility as well as the education of the men and women enrolled in its graduate programs. Such an enterprise can take place only where the highest standards of academic integrity exist.

Each member of the VCU community has certain responsibilities, rights and privileges. These are stated in some detail in the VCU Rules and Procedures [PDF], and all students are responsible for being familiar with provisions of this document. This document also provides for the process whereby disciplinary action, including separation from VCU, may be taken against a member of the university community as a result of behavior that is in violation of the prohibited conduct as stated in the VCU Rules and Procedures.

- The VCU Rules and Procedures are printed in the VCU Insider and also are available at the Office of Student Conduct and Academic Integrity.
- The Division of Student Affairs publishes an index of policies, guidelines and procedures.
- The VCU Integrity and Compliance Office maintains the latest versions of all universitywide policies and procedures on its Policy Library website.
- The VCU Graduate Bulletin documents the official admission and academic
 rules and regulations that govern graduate education for all graduate
 programs at VCU. It is the responsibility of all graduate students, both onand off-campus, to be familiar with the Graduate Bulletin, as well as the
 academic regulations in individual school and department publications and on
 program websites; however, in all cases, the official policies and procedures
 of the University Graduate Council, as published in the Graduate Bulletin and
 on the Graduate School website, take precedence over individual program
 policies and guidelines.

VCU Honor System

VCU recognizes that honesty, truth and integrity are values central to its mission as an institution of higher education. Therefore, all students are subject to the VCU Honor System [PDF]. All graduate students are responsible for being familiar with provisions of this document.

Academic dishonesty is the giving, taking or presenting of information or material by students with the intent of unethically or fraudulently aiding themselves or others on any work that is to be considered in the determination of a grade or the completion of academic requirements. Students in doubt regarding any matter related to the standards of academic integrity in a given course or on a given assignment should consult with the faculty member responsible for the course before presenting the work.

Grade review procedures

Graduate students at VCU have a right to appeal actions of an academic nature. If such action involves a course grade, the Grade Review Procedures as published in the Rules and Procedures should be followed. If such action involves computing, the Computer and Network Resources Use Policy should be followed.

Dismissal from a graduate degree program

In addition to those standards of conduct described in VCU Rules and Procedures and the VCU Honor System, students enrolled at the university may be dismissed from the academic programs in which they are enrolled for failure to meet prescribed academic program requirements. Students appealing dismissal from their graduate degree programs should first pursue appeals at the program/department and/or the school level. After receiving the program/department and/or

school decision, students have the option of filing an appeal with the graduate dean in the process outlined in the Appeal process for students dismissed from a VCU graduate degree program.

Other university policies that might impact graduate students include, but are not limited to, the following:

- · Alcohol and Drug Policy
- · Care and Ethical Use of Animals in Research and Education at VCU
- · Information Security Policy
- · Intellectual Property Policy
- · Misconduct in Research and Scholarly Activities
- · Non-discrimination on the Basis of Disability
- · Prohibition of Sexual Harassment
- Responsible Conduct in Research and Scholarship
- VCU IRB Written Policies and Procedures

External agencies with policies that might impact graduate students include, but are not limited to, the following:

- State Council of Higher Education for Virginia SCHEV
- Southern Association of Colleges and Schools Commission on Colleges SACS-COC

Revised 5/14/2013 University Graduate Council

Degree requirements

The minimum course requirements, rules of admission to degree candidacy, language requirements, thesis or dissertation requirements, comprehensive examinations, transfer of credits, and the like are specified for each program in the individual program sections on this bulletin Web site. Additionally, many schools, programs and departments maintain Web sites and publish special brochures, student manuals and program guides that may be requested from the appropriate dean or program director.

In all cases, the official policies and procedures of the University Graduate Council, as published in the Graduate Bulletin and on the Graduate School Web site, are fully applicable to all graduate programs and graduate students, both on- and off-campus, and take precedence over individual program policies and guidelines. Graduate students should contact the Graduate School with questions regarding any discrepancies.

The university reserves the right to revoke any degree, certificate or other university recognition for cause. In addition, any time following the award of a degree, certificate or other university recognition, the university reserves the right to take appropriate action, including, but not limited to, the revocation of such degree, certificate or other university recognition, on the basis of academic misconduct discovered subsequent to, but which occurred prior to, the awarding of the degree, certificate or other university recognition. More specifically, when an action that constitutes a violation of the VCU Honor System leads to a finding that invalidates a major piece of work required for a degree, certificate or other university recognition so that the validity of the degree, certificate or other university recognition is jeopardized, the student or former student will be subject to a sanction that may include (a) rejection of a thesis, dissertation or other work, (b) revocation of a certification or other university recognition or (c) revocation of a degree.

Academic advising

Students are responsible for the proper completion of their academic programs. They must be familiar with the Graduate Bulletin (catalog) as well as all additional academic regulations promulgated by individual schools and departments.

The offices of the deans and department chairs, in cooperation with the advisers and faculty, endeavor to follow the academic progress of all students, and students are encouraged to seek counsel whenever there is a need. If advisers are unable to resolve problems satisfactorily, they will refer students to others as deemed appropriate and necessary.

In order to aid advising, students are responsible for maintaining current mailing addresses on file with the Office of Records and Registration, as well as with the schools and departments in which they are enrolled.

Students also are required to obtain an official VCU student e-mail account within one week of the beginning of the first semester of enrollment and are responsible for reading in a timely fashion university-related communications sent to their official VCU student e-mail accounts. Information on how to set up an account is available online at http://mymail.vcu.edu.

The academic advising process requires periodic checks by graduate students, advisers and program directors to ensure the accuracy of students' academic histories. Unofficial academic histories are available on line through eServices, or official transcripts may be obtained for a fee from the Office of Records and Registration.

It is the responsibility of all graduate students to:

- Check their records no later than the end of the add/drop registration period at the beginning of each semester to ensure that their registrations are correct and
- 2. Check their records at the end of each semester to ensure that their academic histories are current and correct.

Students who wish to appeal assigned grades must follow the Grade Review Procedure as articulated in this Bulletin (catalog) at www.pubapps.vcu.edu/bulletins/graduate/?uid=10045&iid=30071 and as published in VCU Rules and Procedures.

Requests for any other changes to an academic history must be submitted in writing by students to their graduate program directors no later than 14 calendar days after the beginning of the following semester (for the fall semester, 14 calendar days after the beginning of the spring semester; for the spring or summer semester, 14 calendar days after the beginning of the fall semester).

Graduate students, program directors and academic school deans/designees are required to conduct a final review of all academic histories as part of the application-to-graduate check-out process as articulated in this Bulletin (catalog) at www.pubapps.vcu.edu/bulletins/graduate/?uid=10045&iid=30072 and on the Graduate School website. A student's signature on the application to graduate is acknowledgement that the student has reviewed the academic history and that it is correct. Final approval signatures by graduate program directors and academic school deans/designees on the final application to graduate confirm that the student's academic history is complete, correct and final and that no future requests for changes to the academic history will be considered once the student has been approved to graduate.

Revised 5/11/2010 University Graduate Council

Exceptions

Exceptions to graduate policies must be approved by the dean of the Graduate School. Requests for exceptions to Graduate School policies are to be made in writing by students to their graduate advisers/program directors. The graduate advisers/program directors will forward their recommendations, along with copies of student requests and supporting documentation, to the school dean/dean's designee, who will review and approve or disapprove recommendations. Recommendations approved by the school dean/dean's designee will then be forwarded to the dean of the Graduate School, who represents the University Graduate Council.

Withdrawal from a graduate program

Graduate students in good academic standing, according to the academic rules and regulations articulated in the Graduate Bulletin and by individual graduate programs, may request to withdraw from a graduate program at any time. Students should notify their graduate program directors as soon as possible of the intent to withdraw from the program. The program director will then notify the Graduate School via the Special Action Form procedure. The effective term of withdrawal is recorded as the end of the last term of active registration.

Withdrawal from a program does not constitute a withdrawal from course work. Students who wish to also withdraw from classes should do so according to the procedures in the "Withdrawal from classes" section of the Bulletin.

Students who are not in good academic standing should be reviewed for possible termination from their academic programs as prescribed in the Graduate Bulletin (see Appeal process, students terminated from a VCU graduate program).

Revised 5/8/2012 University Graduate Council

Appeal process, students dismissed from a VCU graduate program

A. Dismissal process

- Dismissal is initiated at the program/department level by advisers/ graduate program directors/department chairs via a special action form indicating the reason with relevant documentation attached. Reasons for dismissal may include but are not limited to:
 - Academic (D or F in class, too many grades of C, as determined by the student's academic program in conjunction with Graduate Council policy, GPA below 3.0, failure of comprehensive exams, lack of progress on/unsuccessful defense of thesis/dissertation),
 - Discontinuous enrollment
 - Exceeding time limit
 - Honor policy violation
 - · Academic misconduct
 - · Professional misconduct
- Request for dismissal is forwarded to the school dean/dean's designee, who reviews the action, signs the form and forwards it to the graduate dean within 10 business days.
- 3. The graduate dean/dean's designee reviews the action, signs the form, notifies the Office of Records and Registration and sends a dismissal letter to the student via office VCU email. This letter must include a statement of the student's right to appeal and inform the student that appeals must be initiated at the program/department and/or school level within 10 business days after receipt of the letter.

B. Appeals process

Preamble

Virginia Commonwealth University, through its Graduate School, defines minimum standards for admission and sets general rules governing eligibility for continuation. However, the individual graduate programs, through their respective graduate faculty and graduate program procedures, exercise principal responsibility for evaluating graduate student work. It is assumed that most disputes over evidence of unsatisfactory progress will be reconciled through discussions between faculty and students at the school/department/program level.

It is important that each graduate student be fully informed, not only of the VCU Graduate School Policies and Procedures, but also of any additional departmental program requirements beyond those established by the Graduate School. A copy of each departmental graduate policy statement should be readily available to all graduate students. The department should inform graduate students of degree requirements and associated school/program/department procedures at the time of matriculation.

A student may appeal dismissal from a graduate program under the following procedures.

- 1. The student has the burden of proof in all appeals.
- 2. The student must initiate the appeal process at the program level within 10 business days after receipt of the graduate dean's certified dismissal letter and according to the program/department and/or schools/colleges appeal processes. All program/department and/or school/college appeal processes should be exhausted prior to initiating an appeal to the graduate dean.
- 3. If all program/department and/or school/college appeal processes fail to resolve the issue, the student must provide the graduate dean with written notification of appeal, to include justification and all supporting documentation (correspondence and other paperwork leading up to the dismissal), within 10 business days of the school/college decision. All documentation must be provided at the time of written notification of appeal.
- 4. The graduate dean provides the graduate program director and school/college dean with copies of the student's appeal and asks the graduate program director/dean/department chair to provide the Graduate School with their response, including copies of correspondence and any other supporting documentation that led to the dismissal. The graduate

- program director and school dean must respond to the graduate deans request for information within 10 business days.
- 5. The graduate dean will review the materials and may refer the matter to the Admissions and Academic Standards Committee of the University Graduate Council. The committee is composed of faculty members from various divisions of the university plus one ex-officio voting member from the Graduate School. AAS members who have direct knowledge of the student's case will be recused. A minimum of four members must be present to constitute a quorum. The committee will convene to review the documentation and consider the positions of the parties. At its meeting, the committee will hear presentations from and ask questions of the student and representatives of the school/department/program. The student and the school/department /program representative may each bring up to two persons who may provide support and advice but who may not speak for the parties.
- 6. After considering the materials submitted and the presentations by the parties, the committee will convene in closed session and decide, by majority vote, whether to recommend that the graduate dean uphold or reverse the dismissal. In the event of a less than unanimous decision, both opinions will be communicated to the graduate dean. The graduate dean renders the final decision and notifies the student in writing within 10 business days by certified mail to the student's official address on file with the university.
- The student may be allowed to register for courses during the pendency of the appeal, understanding that he/she will be dropped retroactively if the dismissal is upheld.

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Student load

Student load is the total number of credits for which students are enrolled in any semester. Students may be either full time or part time, dependent upon program rules. Students who are fully funded as VCU graduate assistants with tuition remission are classified as "full time" during any semester in which they enroll for nine or more credits (three during the summer if funded on a 12-month stipend). Departmental requirements vary; therefore, funded students should verify expected course loads with their graduate program directors.

The maximum number of credits for which students may enroll in any semester without special permission is 15. More than 15 credits is an overload. More than 15 credits may result in increased tuition. Permission to enroll for more than 15 credits may be granted upon the written recommendation of the adviser, through departmental governance procedures, to the dean of the Graduate School.

Each summer course is designed to provide the equivalent of one semester's work. With careful scheduling, it is possible for students to earn as many as 15 credits during the summer if course work extends over the full summer semester calendar. Permission to enroll for more than 15 credits in the summer semester may be granted upon the written recommendation of the adviser through departmental governing procedures to the dean of the Graduate School.

Summer success is predicted on the academic standard of one credit per week. Six credits in five weeks or nine credits in eight weeks is considered a normal load, but VCU does not permit six credits in four weeks or nine credits in six weeks. Suggested scheduling combinations are printed in the Summer Schedule of Classes or are available online at www.vcu.edu/schedule.

Graduate courses are not offered during the Winter intersession.

Revised 5/11/2010; 5/10/2011 University Graduate Council

Attendance and enrollment policies Class attendance

Instructors are responsible for clearly informing students in writing of the attendance requirement for each course and the consequences of poor attendance. Students must abide by the requirements as announced in each separate class even though the requirements may vary widely among courses.

The instructional programs at VCU are based upon a series of class meetings involving lectures, discussions, field experiences, special readings and reporting assignments. Therefore, it is important for each student to be in attendance on a regular basis. A student who misses a class session is responsible for completing all material covered or assignments made during the absence.

Students having attendance problems should contact the instructor to explain the reasons for nonattendance and to discuss the feasibility of continuing in the course. If the student has fallen so far behind that the successful completion of the course is impossible, the student should withdraw from the course before the last day to withdraw from a course as published in the academic calendar.

Religious observances

It is the policy of VCU to accord students, on an individual basis, the opportunity to observe their traditional religious holidays. Students wishing to observe a religious holiday of special importance must provide advance written notification to each instructor by the end of the second week of classes. On these dates, instructors are encouraged to avoid scheduling one-time-only activities that cannot be replicated. Through such strategies as providing alternative assignments or examinations, granting permission for audio or video recordings or the use of the Internet, faculty members are expected to make reasonable academic accommodations for students who are absent because of religious observance.

Mandated short-term military training

Students called to report for mandated military training must provide advance written notification to each instructor several weeks in advance of training. Faculty members are expected to make reasonable academic accommodations for students who are absent because of mandated short-term military training (short-term is defined as several days not to exceed two weeks).

Enrollment

Any person engaged in graduate study at VCU must enroll each semester in which he/she is engaged in any form of study at VCU that involves use of university facilities, laboratories/studios and/or libraries, or who is supervised by or consults with a faculty member concerning graduate work on a project, work of art, thesis or dissertation.

Continuous enrollment for degree-seeking graduate students

Continuous enrollment - Pre-candidate

Once admitted to a degree program, a graduate student is expected to comply with minimum enrollment of one course per 12-month period from the beginning of his/her program.

Continuous enrollment - Candidate

A graduate student who has completed course requirements for a degree must register for at least one credit at VCU each fall and spring semester until the degree is awarded. Students must be enrolled during their graduation semesters.

Revised 5/8/2012 University Graduate Council

Residence for Ph.D. programs

At many universities, doctoral students are required to maintain at least one to two years of continuous full-time enrollment or "residence." At VCU, each doctoral program will establish its own residency requirements.

Change in registration

Once students have registered for classes, changes in registration must be made according to the procedures listed below. Whenever students make any changes in registration, they should keep copies of their new schedules as verification of the changes. Changes in registration may affect financial aid. Students are advised to consult with a financial aid counselor before making any changes to their enrollment status. See the "Financial Aid" section of this chapter for detailed information

Cancellation of registration

To cancel registration, students must notify, in writing, the Office of Records and Registration before the end of the "Add-Drop" period, or drop all classes using the Web Registration System. Refunds are issued in accordance with procedures described under the refunds section of this chapter. For readmission guidelines, refer to the admissions section.

Auditing graduate classes

Class size permitting, students may register for courses on an audit basis. Auditing a course means students enroll in courses, but do not receive academic credit upon completion of the courses. Students who register on an audit basis are subject to attendance regulations of that class and, unless otherwise specified at the discretion of the instructor, are subject to the same course requirements as other students in the class. Students who register on an audit basis may be administratively withdrawn by instructors for a violation of class requirements for audit students, before or after the normal withdrawal deadline as posted on the VCU Academic Calendar. Audit students are charged the regular rate of tuition and fees. An audit course is counted as part of students' semester load in terms of classification as fulltime students. Courses taken for audit, however, do not satisfy minimum enrollment requirements for students receiving graduate teaching or research assistantships, graduate fellowships, or university graduate scholarships. Students may register for audit only during add/drop and late registration periods as a new registration and not as a change from credit to audit. Changes in registration status from audit to credit or from credit to audit will not be approved after the last day of add/drop registration. The grade of AU is not included in the calculation of the GPA.

Revised 5/11/2010 University Graduate Council

Leave of absence and withdrawal policies

Leave of absence. Graduate students may request leaves of absence from their programs through written appeals to their advisers. The graduate advisers/program directors will forward the requests to the appropriate school dean/dean designee who, following departmental governance procedures, will forward their recommendations and any supporting documentation to the dean of the Graduate School who will respond for the university. Students who are out of compliance with continuous enrollment policies (see policy on Continuous enrollment for degree-seeking graduate students) and who have not been granted approved leaves of absence by the graduate dean must reapply for admission to VCU and to their graduate degree programs. Graduate students with approved leaves of absence are exempted from continuous enrollment requirements for the LOA period. Students should note that while leaves of absence temporarily suspend continuous enrollment requirements, they do not extend time limits for completion of degrees. (See policy on Exceptions.)

Leaves of absence must be requested and approved before or within a current semester. Requests for retroactive leaves of absence will not be approved.

The posting of the leave of absence on the student's academic record prevents registration for the approved leave of absence period. If the student wishes to return to academic study before the end of the approved leave of absence period, the Graduate School must be notified via the Special Action Form process so that the leave of absence is cancelled and the registration hold removed.

Withdrawal from classes. To withdraw officially from VCU courses, students must submit complete Official Withdrawal Forms to the Office of Records and Registration by the official withdrawal date as published in the official VCU Calendar. The Official Withdrawal Form is obtained from the Office of Records and Registration (Monroe Park Campus: Harris Hall, First Floor; MCV Campus: Sanger Hall, Room 1-055). Students may also withdraw on line via VCU E-services. Failure to complete this process may result in the assignment of failing grades in all or some of the courses.

A grade of withdrawn (W) will be recorded on the permanent student academic record for all courses from which students officially withdraw.

Health-related withdrawals. While graduate students are expected to work toward completion of their degrees without interruption, health-related problems may necessitate an interruption of their studies.

For a protracted illness, a student may choose to ask for an approved leave of absence (see leave of absence policy above).

Some students may experience medical conditions that make them unable to complete their studies once a semester is in progress. If this occurs before the last day of add/drop registration, students should drop their classes via eServices. If an illness occurs after add/drop but before the last day to withdraw, per the academic calendar, students should withdraw from their classes through the normal withdrawal process via eServices.

After the last day to withdraw but prior to the last day of classes per the academic calendar — and before a final class grade has been assigned and/or posted to the academic history — students with medical problems should petition their academic deans (or dean designees) for a medical withdrawal from all courses. Students must present documentation of their medical condition that establishes a significant degree of impairment in continuing their studies. This documentation must include a letter, written on letterhead, from a licensed health care provider that establishes the dates of treatment, the diagnosis and the degree of impairment that the condition has created. The letter should also provide the date when the student became unable to attend classes, when the impairment was considered significant enough to affect academic performance and the anticipated date of return to school. The medical withdrawal should be submitted to the Graduate School via the Special Action Form process.

The student's transcript will reflect a grade of W for all courses approved for a medical withdrawal taken that semester. No special designation for medical withdrawals is made on the transcript, and tuition and fees are levied in the same manner as other withdrawals (see withdrawal from courses policy above). Medical withdrawals may impact future financial aid in relation to Satisfactory Academic Progress.

In the event that a student's health problem poses a danger to the student, to patients or to others with whom the student may come in contact, and the student is unable or refuses to initiate steps to withdraw as stated above, administrative withdrawal of the student may be made by the dean of the Graduate School upon consultation with the appropriate faculty and a qualified physician.

Because curricular and course content changes may occur and a student's progress toward a degree may be affected adversely because of an extended absence, specific time periods may be imposed by individual schools with respect to the length of time allowed for absence from school. If there is a delay in return beyond the allotted time period without written consent of the dean of the Graduate School, the student may petition for return with advanced standing.

Prior to returning to school, the student must submit a statement from a physician documenting that the condition that necessitated the withdrawal has been corrected to a point where the student can complete successfully all curriculum requirements with reasonable accommodation including classroom, laboratory, clinical and fieldwork experience.

Revised 5/14/2013 University Graduate Council

Immunization requirements

The commonwealth of Virginia and VCU require that all full-time students supply validated immunization records to University Student Health Services. This requirement must be completed prior to registering for second semester. Failure to meet these requirements will result in a hold placed on the student's second semester registration. The hold can be removed only upon receipt of the students documented records.

The immunization record must be completed fully and accurately. There are two ways a student may fulfill all requirements:

1. Students may have their health care provider transfer the information from their medical records and sign the form.

or

2. Students may complete the top demographic section of the Certificate of Immunization and attach a copy of official documents from undergraduate institutions, military records, high school or other records that fulfill all requirements to the Certificate of Immunization.

A copy of the Certificate of Immunization, which details the necessary immunizations, is available on the student health Web site at: www.students.vcu.edu/health/docs/immunizations.pdf [PDF].

Students who cannot provide documented evidence of all required immunizations must see their health care provider, health department or Student Health Services to complete all requirements.

Change of graduate degree program

Students wishing to change to different graduate degree programs should obtain new application forms from the Graduate School Web site. Students will have to submit new applications to the new programs with all materials required of applicants to that program. The dean of the Graduate School will work with the administrators of the two programs to facilitate the admission process for eligible students.

Transfer credit

A maximum of 30 percent of the didactic hours required for a graduate degree or any graduate certificate program may be transferred from another VCU program or outside institution and, if not applied previously toward another degree, may be applied toward a degree. Prerequisite course work that does not count toward the VCU degree may not be transferred.

Transfer grades for course work taken at VCU, either as a nondegree-seeking student or in a previous graduate matriculation for which a degree was never awarded, are included in the calculation of the VCU graduate grade-point average and all other graduate statistics. Transfer grades for course work taken at another institution are not recorded on the VCU transcript (only the names of courses, source institutions and credit hours) and are not included in the calculation of the VCU graduate grade-point average and other graduate statistics

Recommendations regarding transfer credit are initiated at the program and academic school levels and reviewed and approved by the Graduate School. All matriculated students must obtain final written approval from the Graduate School for course work approved for transfer **before** registering for course work at another institution. Individual schools/programs may have more stringent requirements. Requests for transfer of course work must include an official copy of the transcript from the college or university where the course work was taken and a VCU Graduate School Transfer Equivalency form (see Graduate School website/forms).

Graduate credit hours earned toward a VCU certificate may be applied one time to degree requirements for master's or Ph.D. programs. Graduate credit hours earned toward a VCU certificate may be applied toward only one certificate. The determination of the acceptability of specific courses to be used for both the certificate and the graduate degree will be the responsibility of that master's or Ph.D. program or school.

All transfer work must be at the A or B grade level from a regionally accredited college or university. "Credit" or "pass" grades can be accepted only if approved by petitioning the Graduate Advisory Committee or equivalent of the student's school or college. Students must be in good standing both at VCU and at the institutions from which the credits were earned. Some programs will not accept credits earned as a nondegree-seeking graduate student for transfer. VCU will not accept credits that do not apply to a graduate degree at the offering institution for transfer, nor will it accept credits from unaccredited institutions for transfer. These criteria apply to all domestic and international institutions

Course work taken under the auspices of any study abroad program, including the study abroad program at VCU, is classified as course work taken at an international institution for purposes of determining if the course work may count toward a VCU graduate degree. Registration for such course work does not guarantee that the course work will count toward a VCU graduate degree. All study abroad graduate course work is subject to the same review and approval process if the course work is to count toward a VCU graduate degree.

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Credit for military service, career or life experience

The Graduate School does not grant graduate-level credit for any type of military service or career or life experience.

The Graduate School may grant credit for formal military service school graduate-level courses that have received positive recommendation by the Commission on Accreditation of Service Experiences of the American Council on Education as stated in the ACE's "Guide to the Evaluation of Educational Experiences in the Armed Services." Recommendations regarding the transfer of military course work are initiated at the program and academic school levels and reviewed and approved by the Graduate School and must meet all other criteria for transfer credit as articulated in the transfer credit policy.

Revised 5/10/2011; 5/14/2013 University Graduate Council

Degree candidacy

A graduate student admitted to a program or track requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Degree candidacy requirements vary from program to program and may include but are not limited to such milestones as successful completion of all or a portion of all required didactic course work, the passing of written and/or oral comprehensive examinations, the identification of the thesis/dissertation adviser and/or committee, and/or the successful defense of the thesis/dissertation prospectus.

Upon satisfactory completion of degree candidacy requirements, the graduate student must submit a Graduate School notice of Admission to Master's or Doctoral Degree Candidacy to his/her program director. The student's signature acknowledges that he/she has read and understands the policies regarding research involving human or animal subjects (Information on human and animal subjects can be found online at www.orsp.vcu.edu/IRB-Home.htm and www.orsp.vcu/edu/IACUC-Home.htm.) as well as continuous enrollment requirements. Both the program director and the school's dean or dean's designee must sign the form to confirm the student's eligibility for admission to degree candidacy and forward it to the graduate dean for final approval and recording of admission to degree candidacy. The graduate dean will formally notify the student of admission to degree candidacy.

The degree candidacy form must be submitted **before** the student formally begins the final thesis/dissertation/research project **but no later** than the semester preceding the semester in which the student graduates. Failure to submit the degree candidacy form in a timely manner may delay graduation.

A graduate student approved for degree candidacy must register for at least one graduate credit hour at VCU each fall and spring semester until the degree is awarded. Students must be enrolled during their graduation semesters. Graduate students with approved leaves of absence are exempted from continuous enrollment requirements for the LOA period. Students should note that while a leave of absence temporarily suspends the continuous enrollment requirement, it does not extend the time limit for completion of the degree.

Revised 5/8/2012 University Graduate Council

Theses/dissertations

Comprehensive examinations

Comprehensive examination requirements and administration of the thesis/ dissertation process vary by program and academic school. Graduate students should refer to the guidelines established by their programs regarding specific program requirements. In addition, graduate students should refer to the Thesis and Dissertation Manual found on the Graduate School website for guidelines regarding the preparation and submission of theses and dissertations and for scheduling the final defense.

Master's degree candidates may have a thesis requirement — or its equivalent in the form of a research project, performance, exhibit or other production. In some programs, master's degree candidates may elect a nonthesis option. In such cases, the program may allow a candidate to change from the thesis to the non-thesis option, or vice versa, once. Such action

requires written approval of the department head and the faculty adviser and/ or the student's advisory committee.

All doctoral candidates are required to prepare dissertations and the associated additional submission requirements as articulated in the Thesis and Dissertation Manual

At the time of defense, a thesis or dissertation must be approved by members of a student's advisory committee with no more than one negative vote. A committee member's approval is given by signing the Electronic Thesis/ Dissertation (ETD) Approval form. A disapproving committee member must also sign the approval form as a dissenting member and must provide a written dissenting opinion to be sent to the Graduate School.

Revised 5/8/2012 University Graduate Council

Graduate advisory committees

Graduate advisory committees shall be appointed for each master's degree candidate for whom there is a requirement to produce a thesis or its equivalent in the form of a research project, performance, exhibit or other production. The committee will coordinate and supervise the preparation of the thesis or its equivalent. The committee shall have a minimum of three faculty members, one of whom should be from a discipline other than the discipline of the candidate. The chair of the committee will be designated as the candidate's faculty adviser. Departments/program directors will appoint advisers for master's degree candidates for whom a thesis or its equivalent is not required. Every member of the committee must hold graduate faculty or affiliate graduate faculty appointment. The chair and at least one other committee member must hold VCU graduate faculty status. It is expected that all members of the committee will be present at any thesis proposal and thesis defense. In the event that a single member of the committee is unable to attend, the committee may meet with the written approval of the graduate program director. If more than one member of the committee is unable to attend, the defense must be rescheduled. The chair must be present for the defense of a thesis proposal and the final thesis.

A graduate dissertation committee shall be appointed for each doctoral candidate. The committee will have a minimum of four faculty members, including a chair, who will serve as the candidate's faculty adviser. At least two members must be from within the candidate's discipline and at least one from another discipline. Every member of the committee must hold graduate faculty or affiliate graduate faculty appointment. The chair and at least two other committee members must hold VCU graduate faculty status. It is expected that all members of the committee will be present at the dissertation proposal and dissertation defense. In the event that a single member of the committee is unable to attend, the committee may meet with the written approval of the graduate program director. If more than one member of the committee is unable to attend, the defense must be rescheduled. The chair must be present for the defense of a dissertation proposal and the dissertation defense.

Upon satisfactory completion of all program requirements for admission to candidacy, doctoral matriculants will take written and/or oral comprehensive examinations administered by their major departments or schools. Successful completion of the examinations shall entitle students to advance to doctoral degree candidacy status. Candidates are then allowed to proceed with the research and preparation of their dissertations and any other doctoral degree requirements designated by their departments.

In the event of failure, students may be permitted to retake comprehensive examinations one time only. The re-examination requires the approval of the appropriate graduate program committee.

Revised 5/14/2013 University Graduate Council

Graduate faculty and affiliate graduate faculty roles and responsibilities

VCU Graduate School Bylaws articulate eligibility criteria for membership on the graduate faculty and provisions for affiliate graduate faculty appointments. All members of a graduate advisory or thesis or dissertation committee must be a member of the graduate faculty or hold an appointment as an affiliate graduate faculty member. All graduate faculty may chair thesis committees; however, only graduate faculty holding the Ph.D. or equivalent

degree may chair a dissertation committee. An affiliate graduate faculty member may advise and serve, but not chair, thesis or dissertation committees

Appointment to affiliate graduate faculty status must clearly articulate the roles and responsibilities and the duration of the appointment. Appointment for purposes of serving on a graduate advisory or thesis and dissertation committee authorizes the affiliate graduate faculty member to fully participate in all activities defined for the group by the individual program guidelines, except for chairing the committee. If the administration and evaluation of comprehensive examinations is explicitly articulated as a responsibility of the graduate advisory or thesis or dissertation committee, then any affiliate graduate faculty appointed to the committee may administer and evaluate the comprehensive examination. If comprehensive examinations are administered and evaluated by a different committee, then an affiliate graduate faculty member may administer and evaluate the comprehensive examination only if such a responsibility is articulated clearly in the recommendation for affiliate graduate faculty membership by the academic school dean and approved by the graduate dean.

Revised 5/10/2011 University Graduate Council

Grades of satisfactory (S), unsatisfactory (U) or fail (f) in thesis/dissertation courses

All thesis and dissertation credits are to be graded each semester as satisfactory (S), unsatisfactory (U) or fail (F). There is no limit to the number of these credits a student may take while pursuing completion of the degree. Receipt of the grade of U is formal notification to the student of unsatisfactory progress. A student who receives a final grade of F in the thesis or dissertation will be terminated from the graduate program. A grade of S or U is not included in the calculation of the GPA. A grade of (I) incomplete may not be assigned for a course approved for satisfactory, unsatisfactory or fail (S/U/F) grading. A grade of U is a permanent grade. Future satisfactory performance is reflected in the assignment of the grade of S in subsequent semesters. A student who receives three Us in a thesis/dissertation course will be terminated from the program.

Revised 5/8/2012 University Graduate Council

Electronic theses/dissertations - mandatory

Electronic Theses and Dissertations (ETDs) are digital representations of the traditional work completed by graduate students in partial fulfillment of requirements for graduate degrees. An ETD can be a simple textual document converted to a standard electronic format such as Adobe Portable Document Format (PDF) or a complex combination of images and formats.

The VCU Graduate School Thesis and Dissertation website, as developed by the University Graduate Council and VCU Libraries, serves as a guide for the preparation of electronic graduate theses and dissertations for graduate students in all programs within the university. Information and a video tutorial are available online at www.graduate.vcu.edu/community/thesis.html.

Thesis/dissertation submission deadlines

All requirements for theses/dissertations must be completed by the deadline published in the Academic Calendar of the semester in which the candidate plans to graduate, including:

- Final defense of thesis/dissertation
- ETD Approval Form with all approval signatures, including the graduate dean's and, if applicable, documentation of IRB or IACUC approval number
- Submission of the ETD to the VCU Digital Archives according to instructions on the VCU Graduate School Thesis and Dissertation webpage (Candidate should confirm with adviser/program director all internal schedules for submission of copy, defense and approval.)
- Survey of Earned Doctorates [All doctoral students must complete the Survey of Earned Doctorates (SED). In order to complete the survey, go to: https://sed.norc.org/survey. Refer to the Thesis and Dissertation Manual on the VCU Graduate School Thesis and Dissertation webpage for further information.]

Publication with ProQuest (All doctoral dissertations must be published with ProQuest. Dissertations are submitted directly by the student through the UMI/ProQuest's ETD Administrator site for VCU.
 Submitting to ProQuest does not satisfy the university's requirement of submission. You must submit to the VCU Digital Archives separately in order to fulfill this requirement for graduation.)

Revised 5/11/2010; 5/10/2011 University Graduate Council

Satisfactory academic progress

Students must continue to make satisfactory progress toward their degrees. Unsatisfactory grades and unprofessional conduct are areas that may warrant review for possible termination from their programs.

Specifically, students may not present courses receiving less than a C for fulfilling degree requirements.

At the end of each semester, graduate faculty advisers and program directors will review the academic progress of all graduate students in their programs. The academic standing of any graduate students who receive multiple grades of C or grades of D or F will be reviewed for possible termination from their programs. Although the grade of U is not included in the calculation of the graduate GPA, graduate students who receive one or more grades of U will be considered for possible termination.

Students who have completed all minimum degree requirements but who are out of compliance with minimum graduation requirements (i.e., graduate grade-point average, 20 percent C or below, 50 percent 500-/600-level course work, etc.), may be allowed, with the permission of their graduate faculty advisers, program directors, academic deans/dean designees and the Graduate School to take additional course work to meet minimum University Graduate Council graduation requirements. Requests for such actions must be processed via the special action form according to the instructions articulated in the Exceptions policy in the Graduate Bulletin. Students will have a maximum of one calendar year to complete such additional requirements. At the end of that time, if students are still out of compliance, they must be terminated from the program for lack of academic progress.

Revised 5/10/2011 University Graduate Council

Time limit for completion of requirements and eligibility of courses

The time limit for a graduate degree will not extend beyond a period of six years for graduate certificates and master's degrees and eight years for doctoral degrees.

Course work completed before matriculation and applied toward the degree, including course work at VCU and that transferred from other institutions, will be evaluated by the program/department to determine whether it can be used to fulfill degree requirements. For course work that was taken more than eight years prior to the completion of the VCU degree, the program/department will evaluate the course work for acceptability and report those courses deemed acceptable to the dean of the Graduate School. (See policy on Exceptions.)

Revised 5/11/2010; 5/10/2011 University Graduate Council

Graduation requirements

All degrees are conferred by the VCU Board of Visitors upon recommendation of the graduate faculty.

Candidates for degrees are eligible for graduation upon completion of all academic requirements in effect at the time of official matriculation into the program, provided the students are continuously enrolled and provided the requirements are met within the time limit specified by the school or program and the University Graduate Council. Students failing to satisfy the time requirement and who are readmitted to their programs shall satisfy requirements in effect at the time of readmission.

Degrees are granted at the close of the semester or summer session in which students complete their work. Degrees will not be granted unless all financial obligations have been resolved with VCU's Office of Student Accounting. Students must be enrolled at the time of application (i.e., the semester in which students graduate).

No degrees will be conferred unless students make formal application to graduate.

Degrees will be awarded and diplomas issued in a current semester only. Students who do not submit/complete their applications to graduate in the semester in which they actually complete their programs will be awarded their degrees in the semester in which they apply to graduate. In such cases, a text notation will be added to the transcript to indicate the date that course work for the degree was completed. Program directors and academic school deans must submit a special action request to the Graduate School to this effect that also includes a request for a waiver of the requirement that the students must be enrolled at the time of application/reapplication. A request for a waiver of the enrollment requirement must document that the student has completed all degree requirements and is not using any university resources (i.e., libraries, computer labs, faculty advising, etc.)

Graduation applications must be submitted by students to their advisers or deans no later than the dates indicated in the university's academic calendars on the Web at www.vcu.edu/academiccalendars. Students should schedule conferences with their advisers well ahead of the deadline and should note that the application requires the approval of the adviser, the department chair or the school director of graduate studies, and the school dean. Credit is applicable toward only one degree unless students are admitted to a course of study that allows a defined number of shared courses. Graduate credit hours earned toward a VCU certificate may be applied one time to degree requirements for master's or Ph.D. programs. Graduate credit hours earned toward a VCU certificate may be applied toward only one certificate. The determination of the acceptability of specific courses to be used for both the certificate and the graduate degree will be the responsibility of that masters or Ph.D. program or school.

Revised 5/11/2010 University Graduate Council

Graduation checklist

The total number of semester credits required for graduation depends upon the degree program. Specific information may be found under degree program descriptions. In addition to the specific requirements listed by the department, the following graduation checklist for graduate students, advisers and program directors summarizes all general requirements for graduation as determined by the University Graduate Council.

- $\circ\quad$ All provisional or probationary conditions of admission have been met.
- Candidates enrolled at time of application/reapplication to graduate (i.e., semester in which candidates plan to graduate).
- Overall graduate GPA is greater than or equal to 3.0.
- Graduate GPA based on all graduate course work attempted after acceptance into program.
- For repeated courses, both original grade and repeat grades included in calculation of graduate GPA.
- No more than six credit hours or 20 percent of total credit hours attempted (whichever greater) at C or below level (C, D, F). Individual programs reserve the right to establish more stringent requirements regarding the acceptance of C grades. Specifically, students may not present courses receiving grades less than C for fulfilling degree requirements.
- No course work approved for transfer below grade of B; no course work approved for transfer included in calculation of GPA.
- Graduate course work only (500 level or higher) may be applied to a graduate degree with at least one half of required course work designated exclusively for graduate students (600 or higher).
- All Incompletes (I) converted to letter grade by last day of class of semester in which candidate plans to graduate.
- All grades of Continued (CO), Progress (PR) and No Grade (NG) converted to letter grades by last day of class of semester in which candidate plans to graduate.
- All course work taken within prescribed time limits (master's, six years; Ph.D., eight years with any extensions approved by Graduate School).

- All requirements for theses/dissertations must be completed by the deadline published in the Academic Calendar of the semester in which the candidate plans to graduate, including:
 - Final defense of thesis/dissertation
 - ETD Approval Form with all approval signatures, including the graduate dean's and, if applicable, documentation of IRB or IACUC approval number
 - Submission of the ETD to the VCU Digital Archives according to instructions on the VCU Graduate School Thesis and Dissertation webpage (Candidate should confirm with adviser/program director all internal schedules for submission of copy, defense and approval.)
 - Survey of Earned Doctorates [All doctoral students must complete
 the Survey of Earned Doctorates (SED). In order to complete the
 survey, go to: https://sed.norc.org/survey. Refer to the Thesis and
 Dissertation Manual on the VCU Graduate School Thesis and
 Dissertation webpage for further information.]
 - Publication with ProQuest (All doctoral dissertations must be
 published with ProQuest. Dissertations are submitted directly by
 the student through the UMI/ProQuest's ETD Administrator site for
 VCU. Submitting to ProQuest does not satisfy the university's
 requirement of submission. You must submit to the VCU Digital
 Archives separately in order to fulfill this requirement for
 graduation.)
- Students must settle all financial obligations with VCU's Office of Student Accounting.

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Application to graduate

At the beginning of each semester, all matriculated graduate students will receive an e-mail reminder from the Office of Records and Registration/Graduation Office to initiate the application-to-graduate process for the current semester

The e-mail notification will be sent to the official VCU student e-mail address and will include submission deadlines and guidelines. (All graduate students in the School of Medicine are asked to complete a preliminary review before initiating the graduation process and are referred to the School of Medicine guidelines or to their advisers/graduate program directors regarding application-to-graduate procedures.)

Students planning to graduate in the current semester should proceed as follows:

- Complete the Graduation Survey on e-Services.
- Visit the Graduation Forms website to complete the Graduate School Application to Graduate according to the instructions provided for the completion and submission of documentation to advisers for review and approval. (These forms are provided in PDF format so that students can complete the forms online and print them. Adobe Acrobat Reader is required.) A separate set of graduation forms must be completed and submitted for each program from which students intend to graduate.

The Graduate School Application to Graduate consists of:

- Instructions for students and advisers regarding submission of documentation and the approval process, including a checklist summarizing academic policies and requirements for graduation as determined by the University Graduate Council and articulated in the Graduate Studies at VCU section of the Graduate Bulletin.
- An approval sheet, requiring both preliminary and final reviews/ approvals (and indicating the process by which advisers can notify Records and Registration/Graduation Office if students do not complete their programs of study by the end of the current semester).
- Directions for completing Commencement Program/Diploma Information. (This information must be submitted no later than the deadlines provided in the e-mail notification to students in order to ensure inclusion in the appropriate Commencement Programs.)

 An optional Graduation Worksheet. (Students should check with their advisers/graduate program directors to see if they are required to complete the optional graduation worksheet.)

Graduate students, program directors and academic school deans/ designees are required to conduct a final review of all academic histories as part of the application-to-graduate check-out process as articulated in this Bulletin (catalog) and on the Graduate School website. A student's signature on the application to graduate is acknowledgement that the student has reviewed the academic history and that it is correct. Final approval signatures by graduate program directors and academic school deans/designees on the final application to graduate confirm that the student's academic history is complete, correct and final and that no future requests for changes to the academic history will be considered once the student has been approved to graduate.

Detailed information about the application-to-graduate process for graduate students and guidelines for graduate program directors/advisers are available on the Graduate School website at www.graduate.vcu.edu/forms.

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Reapplying for graduation

Candidates who do not graduate at the end of the semester for which they have applied must reregister and reapply. Students must be enrolled at the time of application/reapplication (i.e., the semester in which the student graduates).

Commencement

Graduate students are encouraged to visit the Graduate School website for information about university Graduate School events and activities for May and December commencement ceremonies. Students also are encouraged to visit the VCU Commencement website.

Time limit for completion of requirements and eligibility of courses

The time limit for a graduate degree will not extend beyond a period of six years for graduate certificates and master's degrees and eight years for doctoral degrees.

Course work completed before matriculation and applied toward the degree, including course work at VCU and that transferred from other institutions, will be evaluated by the program/department to determine whether it can be used to fulfill degree requirements. For course work that was taken more than eight years prior to the completion of the VCU degree, the graduate program director and school dean/designee will evaluate the course work for acceptability and report those courses deemed acceptable to the dean of the Graduate School. (See policy on Exceptions.)

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Grades

Grade reports

Unofficial academic histories are available online through eServices, or official transcripts may be obtained for a fee from the Office of Records and Registration.

It is the responsibility of all graduate students to:

- Check their records no later than the end of the add/drop registration period at the beginning of each semester to ensure that their registrations are correct and
- Check their records at the end of each semester to ensure that their academic histories are current and correct.

Students who wish to appeal assigned grades must follow the Grade Review Procedure as articulated below in this Bulletin (catalog) and as published in VCU Rules and Procedures.

Requests for any other changes to an academic history must be submitted in writing by students to their graduate program directors no later than 14 calendar days after the beginning of the following semester (for the fall semester, 14 calendar days after the beginning of the spring semester; for the spring or summer semester, 14 calendar days after the beginning of the fall semester).

Graduate students, program directors and academic school deans/ designees are required to conduct a final review of all academic histories as part of the application-to-graduate check-out process as articulated in this Bulletin (catalog) and on the Graduate School website. A student's signature on the application to graduate is acknowledgement that the student has reviewed the academic history and that it is correct. Final approval signatures by graduate program directors and academic school deans/designees on the final application to graduate confirm that the student's academic history is complete, correct and final and that no future requests for changes to the academic history will be considered once the student has been approved to graduate.

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Transcripts

Official transcripts of students' academic records will be issued only by the Office of Records and Registration upon written request of the students.

Repeated courses

Graduate students receiving grades below B shall repeat a course only upon the advice of their program directors. Both the original grade and the repeat grade shall be included in the calculation of the graduate GPA.

For undergraduate students repeating 500-level graduate courses, the undergraduate historical repeat policy applies only if the course is applied toward the undergraduate degree. A historical repeat may not be processed for 600-level courses. (See policy on undergraduate students in graduate classes.)

Revised 5/14/2013 University Graduate Council

Grade review procedure

If a student thinks that a grade is inaccurate, the situation should be discussed with the faculty member. This will allow the faculty member to explain how the final grade was determined and, if an error is detected, to submit a change of grade.

If the student still thinks that the grade was assigned unfairly, a written appeal should be submitted to the department chair. Upon receipt of the written appeal, the department chair shall provide the student with a copy and explanation of the Grade Review Procedure (published in the VCU Insider, available at www.students.vcu.edu), and shall ensure that the requirements of the Grade Review Procedure are followed.

If the department chair is unable to resolve the complaint, then the dean of the school in which the course was offered will form a grade review committee as described in the Grade Review Procedure policy and will submit its decision to the dean of the school. The decision communicated by the dean of the school in which the program resides is the final decision that will be distributed to the student, faculty member(s) and department chair.

In cases concerning grades awarded for the fall semester, the written appeal must be submitted to the department chair no later than 14 calendar days after the beginning of the following spring semester. In cases concerning grades awarded for the spring semester or summer sessions, the written appeal must be submitted no later than 14 calendar days after the beginning of the following fall semester.

Grading system

Work quality is measured by the four-point grade system with the following equivalents:

Grade symbol and meaning	Grade-point value per semester credit
A	4.0
В	3.0
C	2.0
D	1.0

F	0.0
P/F (Pass/Fail)	0.0
PR (Progress)	0.0
S/U (Satisfactory/Unsatisfactory)	0.0
W (Withdrawal)	0.0

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Specifically, students may not present courses receiving less than C for fulfilling degree requirements.

Refer to the grading explanations below for the use of the grades of "satisfactory" and "unsatisfactory" in relation to thesis/dissertation classes.

The number of grade points earned is computed by multiplying the grade-point value for the letter grade by the number of semester credits for the course. As an example, a student receiving an A (i.e., four grade points) in a three-credit course receives 12 grade points.

The grades of accepted transfer courses are not included in the computation of the VCU GPA.

Graduate-level credit is not granted for any type of military service or career or life experience unless it involves course work taken as part of an approved graduate program at a regionally accredited college or university.

Graduate students are not designated as special honors graduates (i.e., cum laude, magna cum laude, summa cum laude) on transcripts or diplomas upon completion of their programs.

No degree credit for remedial work shall be awarded to graduate students. Graduate students advised to take any level course for remedial work should be notified in writing that the course credit shall not apply to the degrees they are pursuing. Other bodies may rule later, should students wish to apply the credit to some other degree.

Grade of audit (AU)

Class size permitting, students may register for courses on an audit basis. Auditing a course means students enroll in courses, but do not receive academic credit upon completion of the courses. Students who register on an audit basis are subject to attendance regulations of that class and, unless otherwise specified at the discretion of the instructor, are subject to the same course requirements as other students in the class. Students who register on an audit basis may be administratively withdrawn by instructors for a violation of class requirements for audit students, before or after the normal withdrawal deadline as posted on the VCU Academic Calendar. Audit students are charged the regular rate of tuition and fees. An audit course is counted as part of students' semester load in terms of classification as fulltime students. Courses taken for audit, however, do not satisfy minimum enrollment requirements for students receiving graduate teaching or research assistantships, graduate fellowships, or university graduate scholarships. Students may register for audit only during add/drop and late registration periods as a new registration and not as a change from credit to audit. Changes in registration status from audit to credit or from credit to audit will not be approved after the last day of add/drop registration. The grade of AU is not included in the calculation of the GPA.

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Grade of continued (CO)

The grade of CO may be assigned as an interim grade for those courses that run over several grade reporting periods. The CO indicates that the course is not expected to be completed in a single semester and that students must reregister for the course. Upon completion of the course, a final grade will be assigned to the current semester, and the previous CO grade(s) will remain. This grade may be assigned only in courses approved for such grading. The grade of CO is not included in the calculation of the GPA.

Grade of incomplete (I)

If, because of circumstances beyond his or her control, a student is unable to meet all the requirements of a course by the end of a semester, the mark of incomplete (I) may be given. The awarding of a mark of I requires an understanding between instructor and student as to when and how the course will be completed. This understanding must be recorded on an Incomplete Grade Assignment Form that is submitted instead of a final course grade. The

maximum time limit for submission of all course work necessary for removal of an incomplete is the end of the last day of classes of the next semester following the semester in which the incomplete was incurred (i.e., an incomplete awarded in the fall semester must be converted by the last day of classes in the spring semester, and an incomplete awarded in the spring or summer session must be converted by the last day of classes in the fall semester). At that time, an unremoved grade of incomplete is changed automatically to a failing grade. Individual departments and schools may have more stringent time limits. An extension of the time limit is possible, but must be approved, prior to the expiration date stated above, by the instructor and the dean of the school through which the course is offered. Written approval indicating the new time limit must be filed with the dean of the Graduate School. The temporary grade of I is not included in the calculation of the GPA.

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Grade of pass (P)

This grade is awarded for certain courses to denote satisfactory completion of requirements. The grade of P is not included in the calculation of the GPA.

Grade of progress (PR)

The mark of PR may be assigned only in courses approved for such grading. Unlike the mark of I, PR will not automatically be changed to a failing grade at the end of the succeeding semester. The grade of PR is not included in the calculation of the GPA

Grades of satisfactory (S), unsatisfactory (U) or fail (F) in thesis and dissertation courses

All thesis and dissertation credits are to be graded each semester as satisfactory (S), unsatisfactory (U) or fail (F). There is no limit to the number of these credits a student may take while pursuing completion of the degree. Receipt of the grade of U is formal notification to the student of unsatisfactory progress. A student who receives a final grade of F in the thesis or dissertation will be terminated from the graduate program. A grade of S or U is not included in the calculation of the GPA. A grade of incomplete (I) may not be assigned for a course approved for satisfactory, unsatisfactory or fail grading. A grade of U is a permanent grade. Future satisfactory performance is reflected in the assignment of the grade of S in subsequent semesters.

Grade of withdrawal (W)

The grade of W indicates that the student has officially withdrawn from a course or has been administratively withdrawn for nonattendance. No student who has officially withdrawn from a course or who has been administratively withdrawn for nonattendance may attend subsequent meetings of the course. Students may reregister for courses from which they have withdrawn through the normal registration process. A grade of W is not included in the calculation of the GPA. The number of hours recorded for courses from which a student withdraws is not included in the calculation of the "20%C or below" statistic. Withdrawals are, however, included in the Satisfactory Academic Progress evaluation conducted by the Financial Aid Office.

Revised 5/8/2012

University Graduate Council

Note: Difference between drop and withdrawal

A student may drop a class during the add/drop registration period only. When a class is dropped, the registration and associated tuition/fee charges are cancelled. Drop charges are removed to indicate that the student never attended the class or never attended the class beyond the add/drop registration period.

A student may withdraw from a class up to the withdrawal deadline as published in the University academic calendar at www.vcu.edu/ academiccalendars. Withdrawal from a course does not cancel the registration or the associated tuition/fee charges, and results in the assignment of the grade of W. Refunds, if applicable, are issued in accordance with procedures described in the refunds section of the "Tuition, fees and expenses" section of this bulletin.

In both situations, any financial aid already disbursed to the student's account based on the original course registration will be assessed and adjusted according to the University Refund Policy and may result in a balance due to the university.

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General course information Credit hour

A credit hour is defined as a reasonable approximation of not less than one hour of classroom or direct faculty instruction and a minimum of two hours out-of-class student work each week for approximately 15 weeks, or the equivalent amount of work over a different amount of time. Credit is based on at least an equivalent amount of work for other academic activities including laboratory work, internships, practice, studio work and other academic work leading to the award of credit hours and is established by individual programs. This definition represents the minimum standard. Student time commitment per credit hour may be higher in individual programs.

Approved 5/13/2013 University Graduate Council

Course numbering

All schools and programs within VCU use the following course numbering system. All course numbers consist of three digits (XXX). The first digit relates to the course level as follows:

0XX noncredit courses Courses offered for students to make up deficiencies in previous training or to improve certain basic skills.

1XX and 2XX undergraduate, lower level Courses with these numbers are offered primarily for undergraduate students and may not be used for graduate credit, although graduate students may be required to register for courses at this level to gain a necessary foundation for other course work.

3XX and **4XX** undergraduate, upper level Courses offered for advanced undergraduates and usually constitute the major portion of specific program work leading to the baccalaureate degree. On occasion, graduate students will be advised by their graduate advisers to enroll in prerequisite 4XX courses. Graduate programs can require that 400-level courses be taken, but credit hours in these courses cannot count toward the graduate degree or in the graduate GPA (effective fall 2004).

5XX introductory graduate courses Graduate students enroll for credit in these courses through the normal graduate advising system. Departments may limit the number of 500-level courses applicable to a graduate degree program. Advanced undergraduates may enroll in these courses for credit with consent of the offering department. Credit is applicable toward only one degree unless a student is admitted to a course of study that allows a defined number of shared courses.

5XX professional graduate courses First year, first professional (medicine, dentistry, pharmacy and physical therapy) courses normally open to students enrolled in the M.D., D.D.S., Pharm.D. and D.P.T. programs. Certain courses of this group may be designated by the department and approved by the University Graduate Council for graduate credit.

6XX, 7XX and 8XX graduate courses Graduate students enroll for credit in these courses through the normal graduate advising system. Credit is applicable toward only one degree unless a student is admitted to a course of study that allows a defined number of shared courses.

6XX and **7XX** professional graduate courses 6XX Second year, first professional (medicine, dentistry, pharmacy and physical therapy [second and third year]) courses normally open only to students enrolled in the M.D., D.D.S., Pharm.D. and D.P.T. programs. Certain courses of this group may be designated by the department and approved by the Graduate Council for graduate credit.

7XX Third and fourth year, first professional (medicine, dentistry and pharmacy) courses normally open only to students enrolled in the M.D., D.D.S. and Pharm.D. programs. Certain courses of this group may be designated by the department and approved by the Graduate Council for graduate credit.

Course interpretation

A single number listing for a course, such as MGMT 648, indicates that it is a one-semester course and may be offered each semester or only one semester each year.

Courses listed with a double number, such as THEA 603, 604 and designated as semester courses, consist of two one-semester courses, either semester of which may be taken without the other.

Courses listed with a double number, such as APPM 575-576, are designated as continuous courses and consist of two one-semester courses, the first of which can be taken without the second, but the second of which cannot be taken without the successful completion of the first.

The university reserves the right to withdraw any course or program.

Leave of absence and withdrawal policies

Leave of absence. Graduate students may request leaves of absence from their programs through written appeals to their advisers. The graduate advisers/program directors will forward the requests to the appropriate school dean/dean designee who, following departmental governance procedures, will forward their recommendations and any supporting documentation to the dean of the Graduate School who will respond for the university. Students who do not register for courses for more than one calendar year and who have not been granted approved leaves of absence by the graduate dean are out of compliance with continuous enrollment policy and must reapply for admission to VCU and to their graduate degree programs. Graduate students with approved leaves of absence are exempted from continuous enrollment requirements for the LOA period. Students should note that while leaves of absence temporarily suspend continuous enrollment requirements, they do not extend time limits for completion of degrees. (See policy on Exceptions.)

Withdrawal from classes. To withdraw officially from VCU courses, students must submit complete Official Withdrawal Forms to the Office of Records and Registration by the official withdrawal date as published in the official VCU Calendar. The Official Withdrawal Form is obtained from the Office of Records and Registration (Monroe Park Campus: Founders Hall, Room 104; MCV Campus: Sanger Hall, Room 1-055). Students may also withdraw on line via VCU E-services. Failure to complete this process may result in the assignment of failing grades in all or some of the courses.

A grade of withdrawn ("W") will be recorded on the permanent student academic record for all courses from which students officially withdraw.

Health-related withdrawals. While graduate students are expected to work toward completion of their degrees without interruption, health-related problems may necessitate withdrawal from the university.

Some schools require a statement from a physician indicating the nature and severity of the condition, when a student should stop attending classes, and the estimated date of return to school.

In the event that a student's health problem poses a danger to the student, to patients or to others with whom the student may come in contact, and the student is unable or refuses to initiate steps to withdraw as stated above, administrative withdrawal of the student may be made by the dean of the Graduate School upon consultation with the appropriate faculty and a qualified physician.

Because curricular and course content changes may occur and a student's progress toward a degree may be affected adversely because of an extended absence, specific time periods may be imposed by individual schools with respect to the length of time allowed for absence from school. If there is a delay in return beyond the allotted time period without written consent of the dean of the Graduate School, the student may petition for return with advanced standing.

Some schools require that prior to return to school, the student must submit to the dean of the Graduate School a statement from a physician. This statement should document that the condition that necessitated the withdrawal has been corrected to a point where the student can complete successfully all curriculum requirements with reasonable accommodation including classroom, laboratory, clinical and fieldwork experience.

Off-campus graduate instruction

VCU is dedicated to serving the needs of Virginians by providing off-campus graduate credit instruction when and where it is needed. Courses are offered in response to an expression of need from various locales and groups.

Off-campus instruction features the same course work available on campus, and most off-campus courses are fully degree-applicable within the admission standards of the Graduate School. The official policies and procedures of the University Graduate Council, as published on this Graduate Bulletin website and on the Graduate School website, are fully applicable to all off-campus graduate programs and graduate students.

Tuition for most off-campus classes is the same as other university classes; however, students in off-campus credit classes are not charged university or activity fees.

For additional information on off-campus credit instruction, contact Edward Howard, director of continuing studies, Division of Community Engagement, 920 W. Franklin St., Richmond, VA 23284-3062, telephone (804) 828-8819, or visit the Division of Community Engagement website at www.community.vcu.edu.

Undergraduate students in graduate classes

VCU undergraduates may enroll in 500-level courses with approval of their advisers and consent of the programs offering the courses. Highly qualified undergraduates approaching the last year of study may petition to enroll in a maximum of two 600-level graduate courses during the senior year of undergraduate study. Permission to enroll as an undergraduate in 600-level graduate courses must be obtained from the undergraduate academic adviser and the Graduate School. The total load must not exceed 16 hours of combined credit. Credit for any course is applicable toward only one degree unless a student is admitted to a course of study that allows a defined number of shared courses. Undergraduate students seeking permission to enroll in 600-level courses must have a minimum undergraduate overall and major grade point average of 3.0.

For undergraduate students repeating 500-level graduate courses, the undergraduate historical repeat policy applies only if the course is applied toward the undergraduate degree. A historical repeat may not be processed for 600-level courses.

Revised 5/11/2010; 5/14/2013 University Graduate Council

Accelerated bachelor's-to-master's programs

VCU offers a number of accelerated bachelor's-to-master's degree programs in which highly-qualified undergraduate students can earn both degrees in a minimum of five years by taking approved graduate-level courses during the senior year of their undergraduate programs. Accelerated bachelor's-to-master's degree programs must be approved by both the University Undergraduate Curriculum Committee and the University Graduate Council. Program descriptions for all accelerated programs are included in the archived bulletin and are also accessible by using the program search function of the online bulletin website.

Undergraduates who are interested and qualified for admission to accelerated programs must apply for admission to graduate study and be accepted before they begin the equivalent of the senior year of undergraduate study. Once accepted, they may enroll in the shared graduate course work identified in the approved curriculum (or in the student's plan of study that must be approved at the time of admission). Graduate 600-level course work that has not been identified as part of the shared course work should not be taken until the shared graduate course work has been completed and the student's status has changed from undergraduate to graduate. No 600-level graduate course work may be taken before the senior year. No undergraduate course work may be counted toward the master's degree.

Students in accelerated bachelor's-to-master's programs who receive grades of C or below in the shared graduate course work identified in the approved curriculum (or the student's plan of study approved at the time of admission) must be reviewed for possible termination from the accelerated program as well as the graduate degree program, if applicable. If allowed to continue in the accelerated program, the grades received in these courses will be counted toward both the undergraduate and graduate degree programs and in the calculation of both the undergraduate and graduate grade-point averages. Substitutions for any of the shared graduate course work must be approved by the undergraduate and graduate advisers before the last day of add/drop registration of the semester in which the student wishes to take the substituted course(s).

Graduate tuition and student fees

Students must pay all applicable tuition, housing and dining charges, and other fees when due, as described in this section. Students who fail to pay these charges on time may be assessed a late payment fee. The university reserves the right to revise or alter all tuition and fees, regulations pertaining to student fees, and collection procedures at any time. In addition to expenses billed by the university, students should make allowances for books, clothing, supplies, travel and other out-of-pocket costs when figuring their total yearly expenses at the university.

Student financial responsibilities

Students who enroll are responsible for:

- Full payment of tuition and fees generated from their registration.
- Full payment of all charges for housing and dining services, and other applicable miscellaneous charges.
- Keeping a current mailing address on file with Enrollment Services. Refunds and tax forms are not issued to students with inactive mailing addresses.
- Establishing an official VCU e-mail address and reading their e-mail on a
 regular basis, since e-mail will be used to notify students when their invoices
 are available in the payment and billing site. Paper bills are not sent to
 enrolled students. Failure to acknowledge and review the electronic invoice
 does not relieve responsibility for timely payments. Other important
 notifications are also sent to the official VCU e-mail address.

Tuition and fees are categorized and described on the Student Accounting Web site at www.enrollment.vcu.edu/accounting/tuition_fees.html.

Full-time and part-time graduate study

Graduate students registered for nine to 15 credit hours are considered full time and are charged a flat rate for tuition and fees. Graduate students registered for more than 15 credit hours during any semester will be charged an overload graduate tuition fee on a per-credit-hour basis above the full-time tuition rate. Graduate students registered for fewer than nine credit hours are charged a graduate per-credit-hour rate based on their program. Graduate students fully funded as graduate assistants or graduate fellows with tuition remission must register for at least nine credit hours per semester (three credit hours during the summer if funded on a 12-month stipend). Departmental requirements may vary; therefore, students should verify expected course loads with their graduate program directors.

Nondegree-seeking students who hold bachelor's degrees are classified as DHG (degree-holder graduate) if they enroll in one or more graduate courses. DHG students are charged the graduate rate regardless of whether they enroll in graduate- or undergraduate-level courses. If they enroll for nine or more credits, they are charged at the full-time graduate rate.

Tuition and fee schedule

Tuition and fees are categorized and described on the Student Accounting website at www.enrollment.vcu.edu/accounting/tuition_fees.html. Questions regarding tuition and fees may be directed to the Student Accounting Department at (804) 828-2228, or by emailing <a href="student-studen

University fee

This fee is used by the university to support student facilities, campus development, intercollegiate athletics and other programs. Full-time students pay a flat-rate university fee each semester. Part-time students pay this fee on a percredit basis.

Student activity fee

This fee is used to support social, cultural and other student activities on the Monroe Park Campus. These activities include concerts, plays, student organizations and publications. Full-time students on the Monroe Park Campus pay a flat-rate student activity fee, while part-time students on the same campus pay this fee on a per-credit basis. Students on the MCV Campus are not charged this fee.

Student Government Association fee

This fee is used to support social, cultural and other student activities on the MCV Campus. The fee is charged to all full-time and part-time MCV Campus students. Monroe Park Campus students are not charged this fee.

Student health fee

All full-time students on both campuses must pay the student health fee. Part-time students may participate in the University Student Health Services on an elective basis by paying the student health fee. The University Student Health Services offers unlimited office visits for acute and chronic ailments, after-hours phone advice for an urgent medical problem and most laboratory tests associated with acute illnesses ordered by the USHS staff, among other services. The fee does not cover accidental injury, emergency room visits or hospitalization. More specific information as to what is covered and not covered by the fee is available on the USHS website.

Technology fee

The technology fee is charged to all undergraduate, graduate and professional students in all programs. Full-time students pay a flat rate. Part-time students pay a per-credit-hour rate. The fee is used to provide for students' technological needs and to support university-wide technological initiatives.

Off-campus fees

The university fee, the student activity fee, the student government association fee (except School of Social Work) and the student health fee are not charged to students taking off-campus classes.

Capital outlay fee

This fee is charged to all full-time and part-time non-resident, on-campus students. The fee is mandated by the General Assembly to reimburse the State for debt service costs attributable to non-resident students related to the financing of buildings and equipment.

Online course fee

The online course fee is charged for undergraduate and graduate online courses. The fee covers operational and personnel support to develop and maintain online courses.

Special fee charges

Because of specialized programs, various schools and departments may charge each student additional fees to cover special materials, equipment breakage and other costs. For specific information about special fees, refer to the Student Accounting Department Web site or to the specific school or department section in this bulletin.

Student billing

Students must pay all applicable tuition, fees, room and board when due. Students are notified at their official VCU email address when their bills are available on the billing and payment site. No paper bills are sent to enrolled students. Tuition and fees for preregistered students, along with charges for housing and dining plans where applicable, are due by the official start of each semester. After the registration period all other students are sent a notification at their official VCU email address when their electronic bill has been issued and should pay by the payment due date indicated on the electronic invoice. Students who fail to pay these charges on time may be assessed a late payment fee. The university reserves the right to revise or alter all tuition and fees, regulations pertaining to student fees, and fee collection procedures at any time. In addition to expenses billed by the university, students should make allowances for books, clothing, supplies, travel and other out-of-pocket costs when figuring their total yearly expenses at the university.

The Installment Payment Plan assists students in meeting the cost of their higher education by offering a convenient payment option. The university-administered IPP is offered only during the fall and spring semesters. The plan distributes the cost of tuition, fees, housing and dining charges for a semester into four equal installments.

All students attending the university with current charges of \$100 or more are eligible to participate. All prior semester balances must be paid in full to be eligible.

Students who receive financial aid are also eligible for participation in the IPP. These students may deduct their aid to determine the net total due. If it is \$100 or more, the remaining amount may be paid in installments.

In some cases, a student may receive a financial aid refund, and then subsequent charges for the semester are added to the student's account. If the student has received a refund, he or she is ineligible to participate in the IPP unless the refund has been repaid to the university in full. The student must then pay the first installment and follow the instructions to enroll in the IPP.

There is a \$25 nonrefundable application fee payable with the first installment of each semester. Interest is not assessed on the outstanding balance; however, installments not paid by the payment due date are subject to a late payment penalty. Information about how to participate in the IPP is available online at www.enrollment.vcu.edu/accounting/payment_plan.html.

Drop vs. withdraw

Drop charges are removed to indicate that the student never attended the class. The student is not eligible to receive financial aid, and any financial aid already credited to the student's account based on the original course registration will be removed from the student's account, which may create a balance due to the university.

Withdraw results in the academic grade of W. Charges are assessed and adjusted according to the University Refund Policy. Students may owe a balance to the university.

Refund of tuition and fees

The official university tuition and fee policy, applicable for the fall and spring semesters only (excluding short/nonstandard courses), is outlined below. Refunds are calculated on a course-by-course (per-credit-hour) basis, disregarding the full-time cap amounts. Students who are enrolled full-time and withdraw from courses may not receive a refund.

- Students dropping/withdrawing from courses through the first week of class will be entitled to a 100 percent refund of tuition and fees.
- Students withdrawing from courses through the second week of class may be entitled to an 80 percent refund of tuition and the university fee.
- Students withdrawing from courses through the third week of class may be entitled to a 60 percent refund of tuition and the university fee.
- Students withdrawing from courses through the fourth week of class may be entitled to a 40 percent refund of tuition and the university fee.
- Students withdrawing from courses after the fourth week of class are not entitled to receive a refund of tuition and fees.

The refund policy and deadlines of the English Language Program (ELP) are different from the university's refund policy for academic courses. Details of the policy may be obtained from the English Language Program Office.

A full refund for Holiday Intersession will be granted if the course is dropped before midnight on the day of the first class meeting. Partial refunds are not granted.

A full refund for a short/nonstandard course's tuition and applicable fees will be granted if the course is dropped no later than the day following the first day of a given class. Partial refunds are not granted.

A full refund for summer tuition and applicable fees will be granted if the course is dropped no later than the day following the first day of a given class. (This policy also is applicable if the class does not meet on two consecutive days.) Students reducing their academic course loads to fewer than full time (12 credits for undergraduates and nine credits for graduates) before the end of the last day to drop a course will be entitled to a refund of tuition and applicable fees reflecting the reduced course load. Partial refunds are not granted for the summer session.

Students who are financial aid recipients and withdraw from all courses prior to completing 60 percent of the semester are subject to the Federal Return of Title IV Funds Policy. For more details see Federal Financial Aid Refund Policy.

Refunds will be computed based on the actual withdrawal date certified by the Office of Records and Registration. Refunds will not be made to students who do not attend classes and have not completed the required withdrawal procedure.

Refund processing may take approximately two to three weeks. Exceptions to this refund policy are made only in rare instances. Written application for an exception must be filed in the Student Accounting Department to the Refund Appeals Committee within three years.

Refer to the Residential Housing contract and Dining Services' "Terms and Conditions" for housing and dining services refunds.

Requests for refunds that are not generated from the overpayment of financial aid should be made in writing to: VCU Student Accounting Department, P.O. Box 843036, Richmond, VA 23284-3036. Refund request forms are available at the Student Services Centers, 1015 Floyd Ave. or 1000 E. Marshall St., Room 323, and on the Web at www.vcu.edu/enroll/forms.

In accordance with credit card regulations, the university will refund any credit balance that may result on a student's account as the outcome of a credit card payment back to the credit card account. The remaining credit balance, if any, will be refunded to the student.

Students are responsible for paying any increase in charges that may occur after the generation of any refund.

Outstanding charges

Students who fail to meet payments when due will be assessed late payment penalties and will be denied registration for future classes until they have paid all accrued amounts owed. Students with balances owed to the university will not be issued degrees, official transcripts of grades or graduate reports until all charges are paid in full.

Any communication disputing an amount owed, including an instrument tendered as full satisfaction of a debt, must be submitted to the Director of Student Accounting, Student Accounting Department, Virginia Commonwealth University, P.O. Box 843036, Richmond, VA 23284-3036.

Pursuant to Section 2.2-4805 et seq., of the Code of Virginia, and in accordance with rules and regulations promulgated by the State Comptroller and Attorney General of the commonwealth of Virginia, VCU will charge interest, costs and fees on all accounts past due.

VCU is participating in the Virginia Set-off Debt Collection Act of 1981. Under the provisions of this act, a Virginia individual income tax refund will be subject to the university's claim for unpaid balances of tuition and fees.

A student who pays a past due balance with a dishonored payment item may be subject to having his or her current and/or future registration cancelled. A charge of \$50 is levied for all dishonored payment items.

Military services tuition relief, refund and reinstatement guidelines

These guidelines apply to students whose service in the uniformed services (military) has necessitated their sudden withdrawal or prolonged absence from their enrollment at Virginia Commonwealth University and provides for the required re-enrollment of such students. Students are offered the following enrollment secession options:

1. Drop all courses before the end of the add/drop period and receive a full reduction of tuition and fee charges. Students residing in university housing and participating in a dining plan will be released from their housing and dining service contracts and will receive a prorated refund of these charges. Students will be asked to sign the drop request form with the director of military student services indicating that they are not receiving a financial aid refund. If the reduction of charges results in an overpayment on the account after any financial aid or third party awards have been reduced, the student will be issued a refund.

This option might best meet the needs of students who are called to active duty service during the first week of school and did not receive a financial aid refund check or direct deposit.

2. Receive a grade of Incomplete (IM – incomplete military) in one or all courses. Students residing in university housing will be released from their housing and dining service contracts and will receive a prorated refund of these charges. Students who chose to take a grade of IM will not have tuition and fees reduced for these courses because, upon receipt of an approved change of grade, credits will still be earned for the semester. Students will have 12 months from the date that they return from active service to complete the course work and earn a course grade. If a student received financial aid,

the amount recovered to the financial aid accounts will follow the Federal Financial Aid Refund Policy.

This option might best meet the needs of students who have essentially completed all course work in a class for the semester, but have yet to turn in a final project, an exam or other materials. It should be agreed upon between the instructor and the student that the remaining course work can reasonably be completed during the 12-month period.

3. Accept administrative withdrawal (WM – withdrawn military) from all courses as of the effective date of the orders to active duty. If this option is elected, a full refund of all tuition, fees and prorated room and dining charges will be made. If a student received financial aid, the amount recovered to the financial aid accounts will follow the Federal Financial Aid Refund Policy. If the reductions of charges results in an overpayment on the account after any financial aid or third party awards have been reduced, the student will be issued a refund.

This option might best meet the needs of students who are called to national service in the middle of a semester and have not completed 75 percent of their class requirements. This option also might best meet the needs of students who are leaving the university during the first week of class and received a financial aid refund check or direct deposit as a result of their financial aid.

4. Students who have completed 75 percent of the course requirements at the time of military activation and, notwithstanding certain exceptions noted below, who meet requirements as determined and agreed upon by the faculty instructor and the student may receive full course credit.

Students may receive full course credit if 75 percent of course requirements have been completed, under certain circumstances. The instructor is responsible for determining what percentage of course requirements have been completed based on factors to include but not limited to contact time, examinations, projects, work experience and clinical experience. The awarding of full credit cannot be made where the incomplete requirements are essential components of the course or program required by law or regulatory bodies, required for competency in the work place, or required to complete licensure examinations.

Leaving the university

To initiate this process, the student must provide the Office of Military Student Services with a copy of his or her active duty orders in addition to a printed copy of his or her course registration for that semester and indicate Option 1, 2, 3 or 4 for each course. If Option 4 is selected, the student must provide documentation from the instructor. The director of military student services will forward all documentation to the university registrar to take the appropriate enrollment action, post the appropriate grades and send a copy of the orders and a copy of the student course request statement to the director of financial aid and the director of student accounting.

Returning to the university

Students who withdrew from the university as a result of military deployment, mobilizations or duty changes are entitled to return without having to requalify for admission so long as the student (a) returns after a cumulative absence of no more than five years and (b) notifies the appropriate admissions office of the intent to return to the university not later than three years after the completion of military service obligation. The student may return to the university in the same program of study. With the consultation of an adviser, a comparable program of study may be chosen for discontinued programs.

Tuition determination and student classification

Tuition is determined by the number of credit hours a student is taking, the student's residency classification, course of study and classification level.

In-state residency

Eligibility for in-state tuition benefits is determined by Section 23-7.4 of the Code of Virginia. Refer to the Determination of student classification for in-state tuition purposes in the About VCU section of this bulletin for the complete code.

All applicants to VCU who want to be classified as Virginia residents must complete the Application for Virginia In-state Tuition Rates included in the graduate application. The residency determination of the applicant will be

conveyed at the time of admission. New and continuing students initially classified as non-Virginians for tuition purposes may request a review of the initial residency determination by completing an Application for Change of Domicile available from the Office of Records and Registration (online). The student must present clear and convincing evidence that he or she is not residing in the state primarily to attend school. The application deadline is 30 days prior to the start of the semester, and it is the responsibility of the student to establish or to file an appeal to change his/her residency classification prior to the start of classes for the semester under consideration. In accordance with the Code of Virginia, applications received after the start of the semester must be considered for the next semester. Submit completed applications with documentation to the university residency appeals officer. Processing may require four to six weeks; therefore it is strongly recommended that applications be submitted earlier than the stated deadline.

Our service to students is limited to assuring that they understand the procedures for appealing and that they have access to information about the relevant sections of the Code of Virginia. We provide information about the steps of our process and access to the applicable sections of the statute and the associated guidelines. We provide qualified staff to review the appeals and make decisions based on the information students provide. What we cannot do is provide advisement to students as to how to present their case for review; we cannot become the student's advocate since we must make the decision.

Students approved for a change to in-state status for tuition purposes are notified by mail with copies of their approval letters sent to the Office of Financial Aid and the Student Accounting Department. Students denied this status also are notified by mail. The denial letter informs the student of procedures for appeal of this decision, to include filing an appeal with the University Residency Appeals Committee. Students who submit fraudulent applications, falsify documentation or conceal information will be subject to reclassification, payment of all nonresident fees owed and university discipline.

Please note that a student with in-state status for tuition purposes who exceeds 125 percent of the credit hours needed to complete his program will be assessed a tuition surcharge.

Financing graduate school

Current information on financial aid programs, policies and procedures are available on the VCU website at www.vcu.edu/enroll/finaid. To obtain printed materials or additional information, call or visit the appropriate financial aid office listed.

Monroe Park Campus programs

Grace E. Harris Hall 1015 Floyd Avenue, First Floor P.O. Box 843026 Richmond, Virginia 23284-3026 (804) 828-6669

Fax: (804) 827-0060

www.enrollment.vcu.edu/finaid/contact.html

Schools of Allied Health Professions, Nursing and Pharmacy

VMI Building, Room 334 1000 East Marshall Street P.O. Box 980277 Richmond, Virginia 23298-0277 (804) 828-2702

Fax: (804) 827-0060

School of Dentistry

Lyons Building, Room 309 520 North 12th Street P.O. Box 980566 Richmond, Virginia 23298-0566 (804) 828-9953

Fax: (804) 828-6072

School of Medicine

McGlothlin Medical Education Center 1201 East Marshall Street, Room 4-306 P.O. Box 980565 Richmond, Virginia 23298-0565 (804) 828-4006 Fax: (804) 827-5555

Policies and procedures on graduate fellowships and assistantships

University graduate teaching and research assistantships and fellowships are awarded to continuing and newly admitted graduate students. These awards are provided with funds from the university, government, foundations, industrial sources, alumni and other private sources. Most fellowships and assistantships are granted on a competitive basis to eligible applicants and determined based on scholarly potential and excellence. Awards range from assistance for tuition and fees and research expenses to stipend support for full-time study and research in programs leading to graduate degrees.

The decision to award most stipends is determined by the department or school to which the applicant is seeking admission. Applicants for fellowship and assistantship support are notified by the department or school soon after the decision has been made. Fellowship and assistantship awards for new and continuing students are granted on a competitive basis, normally for a period of one academic year.

Inquiry about such awards should be made directly to the school or department in which the student intends to enroll. Students in the process of applying for admission should indicate their interest in such support. Some programs include a separate application for support with the application for admission. Refer to the individual chapters in this Bulletin, program websites and the Graduate School website for additional information on graduate student support and funding opportunities.

VCU fully subscribes to the following resolution of the Council of Graduate Schools in the U.S. and Canada regarding graduate scholars, fellows, trainees and assistants:

"Acceptance of an offer of financial support (such as graduate scholarship, fellowship, traineeship or assistantship) for the next academic year by a prospective or enrolled graduate student completes an agreement that both student and graduate school expect to honor. In that context, the conditions affecting such offers and their acceptance must be defined carefully and understood by all parties."

The council provides the following comments on the CGS resolution:

"Students are under no obligation to respond to offers of financial support prior to April 15; earlier deadlines for acceptance of such offers violate the intent of this Resolution. In those instances in which the student accepts an offer before April 15 and subsequently desires to withdraw that acceptance, the student may submit in writing a resignation of the appointment at any time through April 15. However, an acceptance given or left in force after April 15 commits the student not to accept another offer without first obtaining a written release from the institution to which commitment has been made. Similarly, an offer by an institution after April 15 is conditional on presentation by the student of the written release from any previously accepted offer. It is further agreed by the institutions and organizations subscribing to this resolution that a copy of this resolution should accompany every scholarship, fellowship, traineeship and assistantship offer."

Graduate fellowships

Fellowships are not work-related and are designed to free students to spend all of their time on graduate studies and research. Fellowships are awarded on the basis of a student's demonstrated academic achievement, promise and need.

Fellows are required to maintain strong academic records and to remain in residence as full-time students during the fellowship period unless special approval is given by the dean of the Graduate School.

Requests for graduate fellowships from students seeking admission to the university should be included in the personal statement submitted with the application for admission and/or on supplemental forms required by individual departments or programs. To be considered for a fellowship, students must return application forms to the university in accordance with deadlines established by the individual departments or programs.

Fellowships for minority students, such as those provided by the National Science Foundation and Ford Foundation, are made by the sponsoring agencies to individual students. Applications are submitted directly by the students to the sponsor, usually in early fall.

A number of graduate tuition fellowships are funded by the commonwealth of Virginia. Funding for this program is allocated by the Graduate School to individual schools and program directors who, in turn, identify recipients. These fellowships are awarded in most graduate departments with preference given to Virginia residents. Tuition fellowships may range from a minimum of \$500 a semester to full tuition and fees for an entire academic year.

Fellowships are awarded for not longer than one calendar year and are not renewed automatically from year to year unless specifically stated in writing. Graduate program directors generally determine eligibility for renewal of fellowship awards in subsequent years.

Graduate assistantships

Graduate assistants are typically more effective members of their chosen fields due to formal instruction and close interaction with faculty by assisting faculty in classrooms, research or administrative endeavors. All graduate assistant duties are designed to foster student training and graduate learning experiences.

Although assigned teaching, research or administrative support duties, graduate assistants are regarded by the university as students and not as employees. As such, graduate assistants do not accrue paid sick leave, annual leave or holiday leave.

A number of graduate assistantships are awarded each year on the basis of exceptional scholastic achievement, promise and competence for service in the departments of the university. Assistantships are generally also available in those departments which have government, foundation, business and industrial research grants and contracts.

The duties of graduate assistants require work from 10 to 20 hours per week, depending on the stipend awarded. Graduate assistants must satisfactorily perform the duties assigned by their departments; make satisfactory progress in their programs as defined by the degree requirements and the regulations of their departments; and may not hold any employment or appointment of a remunerative nature during the term of their assistantship.

Additional opportunities for involvement in outside activities may arise in the course of the training period, some of which may provide for additional/ supplementary compensation. Involvement and/or participation in such opportunities may assist the department in maintaining the research infrastructure, provide additional experience in instructional activity, assist other units of the university in the delivery of programs consistent with the missions of the institution, involve participation in university organizations and so forth. Such activities may include those for which supplementary compensation is provided. While such activities have the potential for enriching the development of the individual graduate student, they also hold the potential for interfering with the graduate student's responsibilities to his/her department or program and her/his timely progress toward the completion of his/her educational degree requirements.

Therefore, graduate students **must** consult with their advisers prior to undertaking additional activities that may detract, or which have the potential for detracting, from their timely progress to degree completion. Advisers are encouraged to provide/encourage opportunities which broaden the training experience for students in preparation for the wide variety of career opportunities now available. The graduate program director should also be made aware of any such activities to ensure that completion of degree requirements is not compromised.

Some graduate assistants are appointed to support faculty when conducting research. Whenever possible, these assistants will be assigned to faculty who are working in a variety of areas to extend the student research experience and professional development. Graduate assistantships that involve research are generally assigned to those students pursuing degrees that require a thesis or a dissertation.

Other graduate assistants are assigned to departments, divisions, institutes, schools and other offices of the university to assist in the administration of these units. Such assignments are generally given to those pursuing professional degrees in the management sciences. These assistants will be exposed to a variety of administrative experiences and tasks as an integral part of their academic endeavors to prepare them for future professional roles as administrators.

Graduate assistantships are awarded for not longer than one calendar year and are not renewed automatically from year to year unless specifically stated in writing. Graduate program directors generally determine eligibility for renewal of graduate assistantship awards in subsequent academic years. Specific work assignments, scheduling and arrangements relating to vacation and personal leave are determined by the department, program or administrative unit to which the graduate student is assigned.

Affordable Care Act as it relates to graduate assistantships

As noted above, graduate assistantships may require that a graduate student work for up to 20 hours per week. Graduate assistants should not be employed elsewhere, particularly within the university. Graduate students should not hold both an assistantship and an hourly or adjunct instructor position at the same time. In exceptional cases, schools/college may authorize graduate assistants to have additional jobs, but only if they do not exceed 29 hours total in a work week as mandated by the governor of Virginia. At this time, the commonwealth of Virginia has not permitted any agency to provide exceptions to the 29-hour limit. Accordingly, VCU cannot make any exceptions to the limit. The Affordable Care Act requires employers to offer health care coverage to any individual working more than 29 hours per week. At this time, VCU does not offer health benefits to graduate assistants. Therefore, no school/college at VCU can hire a graduate assistant for work that exceeds 29 hours per week (20 hours as a graduate assistant and 9 additional hours) as this action is against state and university policy and exposes VCU (and, ultimately, the school/college) to a large, as yet undetermined fine.

Eligibility

Students who are candidates for appointment as graduate fellows and assistants are responsible for meeting the following eligibility requirements and for taking the initiative in ascertaining that all have been fulfilled. The requirements are described here to provide graduate student applicants with an understanding of the usual conditions for awarding fellowships and assistantships; however, individual schools, departments or programs may set more rigorous standards.

An entering student is awarded an assistantship or fellowship on the basis of academic potential. The student is expected to have been admitted fully and without academic provision, having achieved a grade point average of at least 3.0 on a 4.0 scale for the last 60 semester hours of academic credit earned. Another indicator of academic potential is a score on the Graduate Record Examination that places the applicant above the 50th percentile of all students who take this examination. In those disciplines requiring GRE subject tests, an upper 50th percentile achievement is required. An equally high achievement level is expected on the Graduate Management Admissions Test, the Law School Admissions Test or the Miller Analogies Test. Students applying for studio and performing arts must demonstrate potential through the quality and promise of their portfolio or audition.

Graduate fellows and assistants, once appointed, must maintain a minimum grade point average of 3.0. Graduate students may be retained as fellows and assistants only as long as they are registered as current, full-time students in good academic standing and are satisfactorily performing their teaching, research or administrative duties.

Appointment and notification

Each year the dean of the Graduate School will notify individual department chairs, program directors and deans of the allocation of the university's graduate student support funds. This notification will include detailed award criteria and instructions for processing these funds. It is the responsibility of each awarding unit to provide funded graduate students with award letters which clearly define the amount, term of appointment and conditions of the award, including the job description of assistantships, renewal criteria, associated tuition and fee support, disbursement information and minimum enrollment requirements. Award letters should also be provided to students funded by other sources, such as department funds, grants and overhead accounts.

Notices of awards should include the Graduate School Policy Statement on Graduate Fellowships and Assistantships and the university's student tax guide. Graduate students should be instructed to return signed copies of award letters to the awarding unit(s) in order to acknowledge that they have read these documents and to indicate acceptance of the award and its conditions. All newly appointed graduate assistants will be subject to a criminal records check as a condition of employment at VCU.

Termination of appointments

Graduate assistantships and fellowships normally end when the period of appointment is concluded and the term of the assistantship or fellowship agreement is fulfilled. An appointment may also end when the grant or contract supporting the student expires, even if that occurs before the end of the student's current appointment. Otherwise, a graduate fellowship or assistantship may be terminated for the following reasons:

- Resignation for cause by the student. Such resignation is to be in writing for approval by the department chair or program director, with a copy to the dean of the Graduate School.
- 2. Failure of the graduate fellow or assistant to perform assigned duties adequately or to behave professionally. Termination of assistantship or fellowship appointments requires written documentation to support the action. Documentation should clearly show that the infraction, any needed remedy and consequences were conveyed to the graduate student in writing in a timely manner. Such termination is to be recommended by the department chair or program director, with a copy to the dean of the Graduate School.
- Failure of the graduate fellow or assistant to remain in good academic standing or to adhere to enrollment policies in accordance with this policy statement.

Any stipend funds remaining after termination of a graduate fellowship or assistantship revert to the funding department or program and may be reallocated to another graduate student. If students withdraw from classes or programs or reduce enrollment below full time, tuition and fees and stipends may be rescinded and students will be responsible for returning all funds to the university. Exceptions are made on a case-by-case basis by the dean of the Graduate School on the recommendation of the student's graduate program director.

A graduate student who believes that his or her graduate fellowship or assistantship has been terminated unjustly, and who has exhausted all departmental and school appeal procedures, may appeal the decision in writing to the dean of the Graduate School. A student who wishes to appeal a termination of a graduate fellowship or assistantship must notify the graduate dean in writing within 10 business days after the decision to terminate has been upheld by departmental and school appeal procedures.

Minimum course load

During the academic year, all graduate fellows or assistants whose tuition is being paid by the university must enroll for at least nine hours of graduate course work each semester. Undergraduate credits may be included in the minimum, provided they are relevant to the student's degree program and approved by an adviser and the dean of the Graduate School. Courses taken for audit are not counted toward the enrollment requirement. Students awarded summer stipends and tuition are expected to enroll for at least three credit hours during the summer session [change approved by the Graduate Council April 14, 2009, effective summer 2009]. All students are subject to the continuous enrollment rules published in the VCU Graduate Bulletin.

Stipends

Stipends for graduate assistantships vary by discipline, level of degree, hours of work required and availability of funds. All graduate assistantships, however, are subject to the university's minimum stipend levels. For nine- and 10-month assistantships, minimum stipends are \$4,000 for 10 hours of work per week and \$7,500 for 20 hours of work per week. For 12-month assistantships, minimum stipend levels are \$5,000 for 10 hours of work per week and \$9,000 for 20 hours of work per week. Not all appointments guarantee payment of tuition and fees, nor do payment schedules necessarily coincide with registration dates.

Tuition and fee support

Tuition and fee support associated with graduate fellowships and graduate assistantships varies from year to year and by program. Some awards consist of a basic stipend only. In such cases, students are responsible for payment of tuition and fees. Some awards may include the base stipend plus tuition and fees. Payment of special program or class fees is optional and varies from program to program. University awards that include tuition and fee support do not cover special fees. Students are responsible for settling their accounts according to the rules and procedures of the university's Student Accounting Department.

Tuition will be charged according to a student's official residency status as determined by the university's residency office. Questions related to residency status should be directed to that office.

Payments and tax status

The stipend portion of a graduate assistantship package is designated by the Internal Revenue Service as wages for work performed, is processed through the university's Payroll Office and is subject to withholding taxes. A graduate assistantship stipend is reported to the IRS as earned income. Tuition and fee support, if provided, is processed through the university's Office of Financial Aid and is applied directly to the student's account.

A graduate fellowship stipend is not work-related and is not reported to the IRS as earned income. A recipient of a graduate fellowship, however, may be required to report fellowship support as other income and to pay quarterly withholding taxes. Graduate fellowship stipends and tuition and fee support are processed through the university's Office of Financial Aid and are applied directly to the student's account. Once all outstanding tuition, fees and other charges are paid, excess funds are refunded to the student.

For additional information about the tax status of student awards, students are referred to the student tax guide published by the Office of the Vice Provost for Student Affairs and the Office of Payroll Accounting. In all cases, final decisions and interpretations as to the tax status of graduate assistantship or fellowship stipends or tuition and fee awards are made solely by the IRS and, ultimately, it is the student's responsibility to ensure accurate reporting of such support.

Need-based financial aid

All graduate fellowship and tuition and fee awards are reported to the university's Office of Financial Aid and are included in any calculation of financial aid need. Fellowship funding impacts need-based financial aid eligibility differently than funding received from graduate teaching and research assistantships. Students with questions about their need-based financial aid packaging should contact their financial aid advisers, graduate program directors or departmental fiscal administrators about the status of their funding before accepting offers.

Revised 7/17/2014 University Graduate Council

Financial aid

eServices - online records access

Students are encouraged to use eServices, a password-protected service for viewing VCU student records online, to check the status of their financial aid application and award package. Students also may register for classes, print bills and more. The eServices Web site is located at www.eservices.vcu.edu/.

E-mail - official method of communication

Students are required to obtain an official VCU student e-mail account within one week of the beginning of their first semester of enrollment. Students are responsible for reading in a timely fashion university-related communications sent to their official VCU student e-mail account. The Office of Financial Aid uses e-mail to provide financial aid information, to request documentation to support financial aid application data and to provide financial aid application status and award information. Information on how to set up an account is available online (go to the "Academic" section of "Computer Accounts" at www.vcu.edu/it/computer_accounts.html).

Identification requirements

Students must provide picture identification, preferably a VCUCard, for in-person access to financial aid records. For the student's protection, information provided over the telephone and e-mail may be limited if the financial aid staff member is not confident of the student's identity.

Eligibility for financial aid

Most students are eligible for some type of financial aid regardless of family financial circumstances. Basically, to receive aid from any of the federal or state student aid programs, students must:

- Submit a Free Application for Federal Student Aid (FAFSA) or Renewal FAFSA designating VCU (school code 003735) to receive FAFSA results.
- Demonstrate financial need, except for some loan programs.
- Have a high school diploma or a General Education Development (GED)
 Certificate.
- Be enrolled or accepted for enrollment to an eligible degree or certificate program.
- Be enrolled at least half time (five or more graduate credit hours).
- · Be a U.S. citizen or eligible noncitizen.
- Have a valid Social Security number (unless from the Republic of the Marshall Islands, the Federated States of Micronesia or the Republic of Palau).

- Meet Satisfactory Academic Progress (SAP) standards as defined by the VCU Office of Financial Aid (the full VCU SAP policy is available on the Web at www.enrollment.vcu.edu/finaid/sap/grad_pro_rqmts.html).
- Certify that federal and state financial aid will be used for educational purposes only.
- Not be in default on a federal student loan and not owe money on a federal student grant.
- Comply with the Selective Service registration, if required.
- Not be convicted under federal or state law of sale or possession of illegal drugs.

Students admitted as provisional graduate students are eligible for federal loans at the fifth-year undergraduate level.

Detailed information can be found in the federal Student Guide, available in print form from the VCU Office of Financial Aid or electronically

(http://studentaid.ed.gov/students

/publications/student_guide/index.html) and on the VCU Office of Financial Aid website (www.enrollment.vcu.edu/finaid).

Applying for financial aid

The financial aid application process for the academic year begins Jan. 1. All students are encouraged to complete and submit the FAFSA as soon as possible after Jan. 1, designating VCU (school code 003735) to receive the results. In order to reduce problems, errors and omissions on the FAFSA, students are encouraged to apply electronically using FAFSA on the Web (available online at www.fafsa.ed.gov). Once the FAFSA is filed, the federal processor will send the student a Student Aid Report (SAR) or electronic SAR Acknowledgement, and also will electronically send the information to the VCU Office of Financial Aid, if VCU was listed as a school to receive the data. If additional information is needed to complete processing of the application, the VCU Office of Financial Aid will send the student a request for additional information. Responding promptly to such requests will ensure timely processing of the application. Once the review of FAFSA data has been completed, the Office of Financial Aid will send the student a Financial Aid Award Notification.

Please note that health profession students (dentistry, medicine, nursing or pharmacy) must provide both student and parental information on the FAFSA to apply and receive consideration for Title VII grants and loans from the Department of Health and Human Services.

Priority filing dates

The VCU Office of Financial Aid recommends electronically filing the FAFSA by March 1*. Students should complete the FAFSA using data from their completed tax returns. If necessary, they may use estimated tax return data in order to meet the VCU priority filing date but should be prepared to submit a copy of their completed tax returns and W2 forms to VCU as soon as possible. Students will receive their Financial Aid Award Notification after their FAFSA application data has been verified. If students have not applied for financial aid in a timely manner, they may want to participate in the VCU Installment Payment Plan, which budgets each semester's bill over four payments. Information about this plan can be found on the Student Accounting Department's Web site (www.enrollment.vcu.edu/accounting/payments.html).

* Students who do not have access to the Web may apply using the paper FAFSA, available through VCU, high schools, colleges and most public libraries. Those students completing a paper application should mail it to the federal processor by Feb. 1.

Summer studies

Limited financial aid may be available during the summer semester. Students applying for the summer semester must file the FAFSA by March 1. Students also should complete a VCU summer aid application, available on the Financial Aid Web site under "Forms"

Students interested in financial aid for the summer semester should obtain a VCU Summer Studies Schedule of Classes (available in March) for more details.

Study abroad

Financial assistance is available to eligible students enrolled in approved study abroad programs. All study abroad programs must be coordinated through the

Office of International Education at (804) 828-8471. Students should work with a financial aid counselor to coordinate aid for their study abroad program. Information about financial aid and study abroad is available online at www.vcu.edu/oie/eao/fin aid scholarships.

All study abroad course work is subject to the criteria articulated in the transfer credit policy.

Quality assurance

To ensure that information provided on the FAFSA is accurate, a student's application may be selected for review at any time during an enrollment period, and the student will be requested to provide documentation that supports the information. By signing the FAFSA, the student (and the student's parents or spouse, if applicable) agreed to furnish such documentation. If the documentation is not provided when requested, financial aid awards will be canceled and any funds already disbursed may need to be repaid.

University bill

The Student Accounting Department issues online bills for tuition, fees and other university charges. When financial aid awards (grants, scholarships and loans) are not enough to pay university charges, the remaining balance must be paid from personal funds, credit card or the VCU Installment Payment Plan. Federal workstudy awards will not be deducted from university charges because those funds are paid directly to the student, based on hours worked. Any outstanding balance owed will prevent a student from registering for courses and receiving official transcripts. Students who fail to pay their balance on time may be assessed a late payment fee and have a financial hold placed on their account. If the balance remains outstanding after the semester ends, their account may be referred to the VCU Collection Unit at which time collection costs will be assessed.

Financial aid appeals

Financial aid eligibility decisions are made using federal, state and institutional regulations and policies. Students may appeal their eligibility if special circumstances warrant a review. Reasons for an appeal might include one of the following documented unusual circumstances:

- · Loss or reduction of employment earnings.
- Disability or death of parent or spouse.
- Separation or divorce.
- · Loss or reduction of untaxed income.
- · Losses due to a natural disaster.
- · Unusually high educational program costs.
- · Unusual medical expenses.
- · Dependent and child care expenses.

Any financial aid staff member can advise a student about the procedures on how to file an appeal.

Federal financial aid refund policy

Students who receive federal Title IV grant or loan assistance and withdraw from VCU before completing 60 percent of the semester (as measured in calendar days) must have their eligibility recalculated based on the federal Return of Title IV Funds formula. This federal formula specifies that a student's financial aid eligibility must be recalculated based on the aid the student has "earned" (based on the number of days that the student was enrolled or attending VCU prior to withdrawal). Any unearned aid (for the period of enrollment that the student did not complete from the date of withdrawal to the end of the semester) must be returned to the appropriate Title IV programs from which the student was awarded

For VCU students who withdraw prior to completing 60 percent of the semester, they will have to return or repay all or a portion of the aid funds that had been disbursed to their VCU account. As a result, students who withdraw prior to completing 60 percent of the semester may be responsible for all or a portion of their tuition/fee bill that was previously paid by financial aid sources.

If a student does not officially withdraw from all classes but fails to earn a passing grade in at least one course, federal aid regulations require that the student be considered "unofficially withdrawn," unless it can be documented that the student completed the enrollment period. Unofficial withdrawals require a Title IV refund

calculation at the midpoint of the enrollment period. The reduction of federal aid will create a balance due to the university that must be repaid.

Graduate students in undergraduate courses

Students who are classified as graduate students will be eligible for federal financial aid only if they are enrolled at least half time in courses that can be applied toward their graduate degree. The Office of Financial Aid will identify all graduate students who have applied for financial aid but have registered for less than half-time graduate course work in any given semester. If the undergraduate course work for which the student has registered is considered preparatory to the graduate degree, documentation must be provided by the student's adviser or program representative to verify which undergraduate courses are required. In these cases, the student will be eligible for federal financial aid, but it will be based on the fifth-year undergraduate loan limits. Students who have been admitted to a dual degree program can take any amount of required undergraduate coursework and will still be eligible for graduate loan limits.

Satisfactory Academic Progress for financial aid purposes

To be eligible to receive financial aid at VCU, students must make Satisfactory Academic Progress. SAP is a combination of qualitative and quantitative components. SAP is measured by:

- GPA. Generally, graduate students are expected to maintain at least a 3.0 GPA as specified by their departments.
- Completion rate. The completion rate is measured by the number of credit hours earned divided by the number of credit hours attempted. All students must successfully complete at least 67 percent of all credit hours attempted (withdrawals, incompletes and repeated courses also are considered attempted credit hours).

The Office of Financial Aid will perform a periodic SAP review for students who receive or apply for financial aid. The reviews are typically performed at the end of the spring semester and must be completed at least once per academic year. Students will be alerted with warning letters, whenever possible, to provide them with notice that their financial aid may be in danger of being suspended. When students fail to meet SAP requirements, they will receive suspension letters indicating that they are ineligible to receive further financial aid. Students whose eligibility for financial aid has been suspended may submit an appeal if mitigating circumstances prevented the student from maintaining SAP.

For more detailed information about the VCU Satisfactory Academic Progress policy, visit the Office of Financial Aid website (www.enrollment.vcu.edu/finaid/sap/grad_pro_rqmts.html).

Types of financial aid

There are three basic types of financial aid: loans, grants and work-study. Each type has different features and advantages.

Loans

In terms of total dollars available, long-term federal loan programs provide the most dollars. Federal loans must be repaid after the grace period and/or deferment periods have expired. Students must generally remain enrolled at least half time (five credit hours for graduate students). Multiple repayment plans may be available for most federal loans. Selected loan programs include:

- Federal Direct Loan (unsubsidized)
- Health Professions Student Loan
- · Loan for Disadvantaged Students
- · Nursing Student Loan

To ensure that you understand the responsibility and the obligation you are assuming as a Federal Direct Loan borrower, the U.S. Department of Education requires you to participate in entrance counseling prior to receiving a Federal Direct Loan if you have not previously received a Direct Loan, Federal Family Education Loan or Supplemental Loans to Students Loan. The entrance counseling requirement must be satisfied prior to the first loan disbursement. To complete entrance counseling for the Federal Direct Loan Program, go to www.enrollment.vcu.edu/finaid/programs/loans/entrance interview.html.

You will also be required to complete exit counseling before you graduate, withdraw or drop below half-time status. To complete exit counseling for the

Federal Direct Loan program, go to www.enrollment.vcu.edu/finaid/programs/loans/exit_counseling.html.

Grants

Contact individual academic departments for information about grant or scholarship programs.

Work-study

Work-study is a form of financial aid that pays wages for work performed through employment. Work-study positions are located on-campus and in approved off-campus locations. Hourly wages will vary depending on skills and experience. Job listings are posted online at www.students.vcu.edu/careers. When interviewing for work-study positions, students should take copies of their Financial Aid Award Notifications to show prospective employers. Graduate students usually work 15 to 25 hours per week.

Veteran and reservist educational benefits

The Veterans Affairs Office for VCU is located in Founders Hall on the Monroe Park Campus. Detailed information about eligibility for the programs listed below is available on the Web at www.enrollment.vcu.edu/rar/veterans_affairs.html. You also may contact the office to obtain printed material.

Veterans Affairs Office

James M. Chambliss, Certifying Official

Harris Hall

1015 Floyd Ave.

P.O. Box 842520

Richmond, Virginia 23284-2520

(804) 828-6166

Fax (804) 828-8121

E-mail: jmchambl@vcu.edu

Web: www.enrollment.vcu.edu/rar/veterans_affairs.html

Available programs

For details on any of these programs, please visit the Veteran's Affairs page of the Division of Student Affairs and Enrollment Services Web site using the link provided above.

- Montgomery GI Bill Active Duty (Chapter 30)
- Vocational Rehabilitation (Voc Rehab, Chapter 31)
- Veterans Education Assistance Program (VEAP, Chapter 32)
- Post 9-11 GI Bill (Chapter 33)
- Survivors' and Dependents Educational Assistance Program (DEA, Chapter 35)
- Montgomery GI Bill Selected Reserves (Chapter 1606)
- Reserve Education Assistance Program/Reap (Chapter 1607)
- Tutorial Assistance Program
- · VA Work-Study Program
- · Virginia Military Survivors and Dependants Education Program
- Post 9-11 Active Duty (Chapter 33)/Yellow Ribbon Program
- · Yellow Ribbon Program
- · Transferability of Benefit

Eligibility requirements

Eligible veterans/spouses/dependents must comply with the following requirements to receive educational benefits as students:

- The veteran/spouse/dependent must be accepted into a degree or certificate program or be matriculating as a nondegree-seeking student for only two semesters before having to declare a major.
- The veteran/spouse/dependent must request certification by completing and submitting VCU's VA Education Assistance form after obtaining approval via signature of their academic adviser and registering for courses each semester and each summer session from the Veterans Affairs Office.
- The veteran/spouse/dependent is eligible to use benefits for only those courses taken toward a degree, certificate program or as prerequisite courses (only two semesters).

- 4. The veteran/spouse/dependent is not eligible to use benefits for courses taken on an audit basis, or if eliminating a course previously taken and paid for by the VA to remove a punitive grade not counted in GPA calculations via VCU's historical repeat option. The repeated course(s) will be paid for by the VA but the student will incur a debt to the VA for the course(s) eliminated from the student's GPA. The VA does not pay for courses that earn no credit.
- The veteran/spouse/dependent is responsible for ensuring that transcripts are evaluated for transfer credits to be accepted by VCU. Students must submit this information to the Veterans Affairs Office for transmittal to the Veteran's Administration Regional Office.
- The Veterans Affairs Office must be notified by the student/veteran/spouse/ dependent if they change, add, drop or withdraw from courses originally approved by the student/veteran/spouse/dependent's academic adviser and certified by VCU's Veterans Affairs coordinator/certifying official.

Preparing Future Faculty Program

The Graduate School at VCU is committed to providing graduate students with ongoing opportunities for academic and professional development. Working with graduate faculty and academic graduate program directors, and with academic and administrative support from across the university, the Graduate School strives to identify, support and sponsor initiatives that will prepare the next generation of the professoriate.

In conjunction with the Center for Teaching Excellence, the Graduate School sponsors the Preparing Future Faculty Program for graduate students interested in pursuing teaching careers in academe. Complete information about the program is available on the Graduate School Web site at www.graduate.vcu.edu/programs/pff.

Graduate School Mentorship Program

The Graduate School Mentorship Program matches undergraduate and graduate students in mentoring relationships. The goals of the program are twofold: first, to expose undergraduate students to the graduate experience as they consider options and make decisions about post-baccalaureate study and as they transition from undergraduate to graduate student status, and secondly, to provide graduate students with the opportunity to develop mentoring skills as they share their own personal experiences with the undergraduate participants in the program. Complete information about the program is available on the Graduate School website at www.graduate.vcu.edu/programs/mentor.html.

Leaders and Entrepreneurs Academy for Professional Development

In 2011, VCU finalized its six-year strategic plan, Quest for Distinction. Explicit within the first theme, to "become a leader among national research universities in providing all students with high-quality learning/living experiences focused on inquiry, discovery and innovation in a global environment," are several goals related to preparing students appropriately for careers in the 21st century. The Leaders and Entrepreneurs Academy for Professional Development is a new initiative sponsored by the VCU Graduate School. A companion to the Preparing Future Faculty Program, LEAPD will offer a series of short courses and experiences to assist graduate students seeking careers in industry, nonprofit organizations, health care, public service and government. Areas of study will include: how to start your own business, career search and networking skillbuilding, what does it mean (and take) to be a leader, enhancing communication skills, resume writing, negotiation skills, and opportunities for discovering alternative career paths for your chosen program of study. LEAPD is open to all graduate students. For more information contact the VCU Graduate School at (804) 828-2233.



2014-15 Graduate and Professional Programs Bulletin

Professional study

Virginia Commonwealth University currently offers first professional degree programs leading to the Doctor of Dental Surgery, Doctor of Medicine, Doctor of Pharmacy and Doctor of Physical Therapy degrees.

Professional programs admissions

For information about admission to MCV Campus professional programs, refer to the professional sections of the schools of Allied Health Professions, Dentistry, Medicine and Pharmacy.

General admission requirements and procedures

The Board of Visitors, the administration and the faculty of VCU are committed to a policy of equal opportunity in education and employment without regard to age, race, color, national origin, gender, religion, sexual orientation, veteran's status, political affiliation or disability.

Admission requirements

Admission requirements, entrance examinations and application materials for first professional programs may be obtained by contacting the appropriate admissions office. Other detailed information including financial aid opportunities, procedures for international students, regulations and procedures, academic, curricula, and degree requirements are included in the section describing each professional program.

Admission through VCU's Honors College

VCU undergraduate students who are members of The Honors College may apply to The Honors College Guaranteed Admission Program either before matriculation at VCU or early in their undergraduate studies. (The specific deadline for applying is set by the Program.) Honors students in the Guaranteed Admission Program may enter the professional program to which they have applied, provided they satisfy all of the requirements of the GA Program.

To be accepted in The Honors College GA Program, a student must submit a completed application form with at least two letters of recommendation and be accepted by the university, by The Honors College and by the admissions committee of the program the student wishes to enter. The admissions committee may require an interview. Final notification of guaranteed admission is made by The Honors College. For additional information, refer to the Honors College section of the Undergraduate Bulletin.

The following professional programs participate in The Honors College Guaranteed Admission Program:

Doctor of Dental Surgery Doctor of Medicine Doctor of Occupational Therapy Doctor of Pharmacy Doctor of Physical Therapy

International students

International students should refer to the appropriate professional program's chapter for information regarding international student admission guidelines.

Professional programs financial aid

Current information on financial aid programs, policies and procedures are available on the VCU website at www.enrollment.vcu.edu/finaid.

To obtain printed materials or additional information, call or visit the appropriate financial aid office.

Schools of Allied Health Professions, Nursing and Pharmacy

VMI Building, Room 334 1000 East Marshall Street P.O. Box 980277 Richmond, Virginia 23298-0277 (804) 828-2702 Fax (804) 827-0060

Email: nabdul@vcu.edu

School of Dentistry

Lyons Building, Room 309 520 North 12th Street P.O. Box 980566 Richmond, Virginia 23298-0566 (804) 828-9953 Fax (804) 828-6072 Email: kdgillia@vcu.edu

School of Medicine

McGlothlin Medical Education Center 1201 East Marshall Street P.O. Box 980565 Richmond, Virginia 23298-0565 (804) 828-4006 Fax (804) 827-5555

Email: hking1@vcu.edu

eServices - online records access

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- Be a U.S. citizen or eligible noncitizen.
- Have a valid Social Security number (unless from the Republic of the Marshall Islands, the Federated States of Micronesia or the Republic of Palau).
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- Certify that federal and state financial aid will be used for educational purposes only.
- Not be in default on a federal student loan and not owe money on a federal student grant.
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- Not be convicted under federal or state law of sale or possession of illegal drugs.

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http://studentaid.ed.gov/students/publications/student_guide/index.html and on the VCU Office of Financial Aid website.

Applying for financial aid

The financial aid application process for the academic year begins Jan. 1. All students are encouraged to complete and submit the FAFSA as soon as possible after Jan. 1, designating VCU (school code 003735) to receive the results. In order to reduce problems, errors and omissions on the FAFSA, students are encouraged to apply electronically using FAFSA on the Web (available online at www.fafsa.ed.gov/). Once the FAFSA is filed, the federal processor will send the student a Student Aid Report (SAR) or electronic SAR Acknowledgement, and also will electronically send the information to the VCU Office of Financial Aid, if VCU was listed as a school to receive the data. If additional information is needed to complete processing of the application, the VCU Office of Financial Aid will send the student a request for additional information. Responding promptly to such requests will ensure timely processing of the application. Once the review of FAFSA data has been completed, the Office of Financial Aid will send the student a Financial Aid Notification.

Please note that health profession students (dentistry, medicine, nursing or pharmacy) must provide both student and parental information on the FAFSA to apply and receive consideration for Title VII grants and loans from the Department of Health and Human Services.

Priority filing dates

The VCU Office of Financial Aid recommends electronically filing the FAFSA by March 1*. Students should complete the FAFSA using data from their completed tax returns. If necessary, they may use estimated tax return data in order to meet the VCU priority filing date but should be prepared to submit a copy of their completed tax returns and W2 forms to VCU as soon as possible. Students will receive their Financial Aid Notification after their FAFSA application data has been verified. If students have not applied for financial aid in a timely manner, they may want to participate in the VCU Installment Payment Plan, which budgets each semester's bill over four payments. Information about this plan can be found on the Student Accounting Department's Web site (www.enrollment.vcu.edu/accounting/payments.html).

* Students who do not have access to the Web may apply using the paper FAFSA, available through VCU, high schools, colleges and most public libraries. Those students completing a paper application should mail it to the federal processor by Feb. 1.

Summer studies

Limited financial aid may be available during the summer semester. Students applying for the summer semester must file the FAFSA for the academic year preceding the summer semester. Students also should complete a VCU summer aid application, available on the Financial Aid Web site under "Forms"

Students interested in financial aid for the summer semester should obtain a VCU Summer Studies Schedule of Classes (available in March) for more details.

Study abroad

Financial assistance is available to eligible students enrolled in approved study abroad programs. All study abroad programs must be coordinated through the Office of International Education at (804) 828-8471. Students should work with a financial aid counselor to coordinate aid for their study abroad program. Information about financial aid and study abroad is available online at www.vcu.edu/oie/eao/fin_aid_scholarships/.

Quality assurance

To ensure that information provided on the FAFSA is accurate, a student's application may be selected for review at any time during an enrollment period, and the student will be requested to provide documentation that supports the information. By signing the FAFSA, the student (and the student's parents or spouse, if applicable) agreed to furnish such documentation. If the documentation is not provided when requested, financial aid awards will be canceled and any funds already disbursed may need to be repaid.

University bill

The Student Accounting Department issues online bills for tuition, fees and other university charges. When financial aid awards (grants, scholarships and loans) are

not enough to pay university charges, the remaining balance must be paid from personal funds, credit card or the VCU Installment Payment Plan. Federal workstudy awards will not be deducted from university charges because those funds are paid directly to the student, based on hours worked. Any outstanding balance owed will prevent a student from registering for courses and receiving official transcripts. Students who fail to pay their balance on time may be assessed a late payment fee and have a financial hold placed on their account. If the balance remains outstanding after the semester ends, their account may be referred to the VCU Collection Unit at which time collection costs will be assessed.

Special circumstances

Financial aid eligibility decisions are made using federal, state and institutional regulations and policies. Students may appeal their calculated contribution if special circumstances warrant a review. Reasons for an appeal might include one of the following documented unusual circumstances:

- · Loss or reduction of employment earnings.
- · Disability or death of parent or spouse.
- · Separation or divorce.
- · Loss or reduction of untaxed income.
- · Losses due to a natural disaster.
- · Unusually high educational program costs.
- · Unusual medical expenses.
- · Dependent and child care expenses.

Any financial aid staff member can advise a student about the procedures on how to file an appeal.

Federal financial aid refund policy

Students who receive federal Title IV grant or loan assistance and withdraw from VCU before completing 60 percent of the semester (as measured in calendar days) must have their eligibility recalculated based on the federal Return of Title IV Funds formula. This federal formula specifies that a student's financial aid eligibility must be recalculated based on the aid the student has "earned" (based on the number of days that the student was enrolled or attending VCU prior to withdrawal). Any unearned aid (for the period of enrollment that the student did not complete from the date of withdrawal to the end of the semester) must be returned to the appropriate Title IV programs from which the student was awarded

For VCU students who withdraw prior to completing 60 percent of the semester, they will have to return or repay all or a portion of the aid funds that had been disbursed to their VCU account. As a result, students who withdraw prior to completing 60 percent of the semester may be responsible for all or a portion of their tuition/fee bill that was previously paid by financial aid sources.

If a student does not officially withdraw from all classes but fails to earn a passing grade in at least one course, federal aid regulations require that the student be considered "unofficially withdrawn," unless it can be documented that the student completed the enrollment period. Unofficial withdrawals require a Title IV refund calculation at the midpoint of the enrollment period. The reduction of federal aid will create a balance due to the university that must be repaid.

Satisfactory Academic Progress

To be eligible to receive financial aid at VCU, students must make Satisfactory Academic Progress (SAP). SAP is a combination of qualitative and quantitative components and is measured by completion rate. The completion rate is the number of credit hours earned divided by the number of credit hours attempted. All students must successfully complete at least 67 percent of all credit hours attempted (withdrawals, incompletes and repeated courses also are considered attempted credit hours).

The Office of Financial Aid will perform a periodic SAP review for students who receive or apply for financial aid. The reviews are typically performed at the end of the spring semester and must be completed at least once per academic year.

Students will be alerted with warning letters, whenever possible, to provide them with notice that their financial aid may be in danger of being suspended. When students fail to meet SAP requirements, they will receive suspension letters indicating that they are ineligible to receive further financial aid. Students whose

eligibility for financial aid has been suspended may submit an appeal if mitigating circumstances prevented the student from maintaining SAP.

For more detailed information about the VCU Satisfactory Academic Progress policy, visit the Office of Financial Aid website (www.enrollment.vcu.edu/finaid/sap/grad_pro_rqmts.html).

Types of financial aid

There are three basic types of financial aid: loans, grants and work-study. Each type has different features and advantages.

Loans

In terms of total dollars available, long-term federal loan programs provide the most dollars. Federal loans must be repaid after the grace period and/or deferment periods have expired. Students must generally remain enrolled at least half-time (five credit hours for graduate students). Multiple repayment plans may be available for most federal loans. Selected loan programs include:

- Federal Direct Loan (unsubsidized)
- · Health Professions Student Loan
- · Loan for Disadvantaged Students
- · Nursing Student Loan
- · Primary Care Loan

Borrowers in the Federal Direct Loan Program are required to complete loan counseling prior to the first disbursement if you have not previously received a Direct Loan, Federal Family Education Loan or Supplemental Loans to Students Loan. To complete entrance counseling for the Federal Direct Loan Program, go to www.enrollment.vcu.edu/finaid/programs/loans/entrance interview.html .

You will also be required to complete exit counseling before you graduate, withdraw or drop below half-time status. To complete exit counseling for the Federal Direct Loan program, go to www.enrollment.vcu.edu/finaid/programs/loans/exit_counseling.html.

Grants

Contact individual academic departments for information about grant or scholarship programs.

Work-study

Work-study is a form of financial aid that pays wages for work performed through employment. Work-study positions are located on campus and in approved off-campus locations. Hourly wages will vary depending on skills and experience. Job listings are posted to the Career Center's Web site (www.students.vcu.edu/careers). When interviewing for work-study positions, students should take copies of their Financial Aid Notifications to show prospective employers.

Veteran and reservist educational benefits and programs

The Veterans Affairs Office for VCU is located in Founders Hall on the Monroe Park Campus. Detailed information about eligibility for the programs listed below is available on the Web at www.enrollment.vcu.edu/rar/veterans_affairs.html. You also may contact the office to obtain printed material.

Veterans Affairs Office James M. Chambliss, Certifying Official 827 West Franklin Street P.O. Box 842520 Richmond, Virginia 23284-2520 (804) 828-6166 Fax (804) 828-8121

E-mail: jmchambl@vcu.edu

Web: www.enrollment.vcu.edu/rar/veterans affairs.html

Available programs

For details on any of these programs, please visit the Veteran's Affairs page of the Division of Student Affairs and Enrollment Services Web site using the link provided above.

- Montgomery GI Bill Active Duty (Chapter 30)
- Vocational Rehabilitation (Voc Rehab, Chapter 31)

- Veterans Education Assistance Program (VEAP, Chapter 32)
- Post 9-11 GI Bill (Chapter 33)
- Survivors' and Dependents Educational Assistance Program (DEA, Chapter 35)
- Montgomery GI Bill Selected Reserves (Chapter 1606)
- Reserve Education Assistance Program/Reap (Chapter 1607)
- · Tutorial Assistance Program
- · VA Work-Study Program
- · Virginia Military Survivors and Dependants Education Program
- Post 9-11 Active Duty (Chapter 33)/Yellow Ribbon Program
- · Yellow Ribbon Program
- · Transferability of Benefit

Eligibility requirements

Eligible veterans/spouses/dependents must comply with the following requirements to receive educational benefits as students:

- The veteran/spouse/dependent must be accepted into a degree or certificate program or be matriculating as a nondegree-seeking student for only two semesters before having to declare a major.
- The veteran/spouse/dependent must request certification by completing and submitting VCU's VA Education Assistance form after obtaining approval via signature of their academic adviser and registering for courses each semester and each summer session from the Veterans Affairs Office.
- The veteran/spouse/dependent is eligible to use benefits for only those courses taken toward a degree, certificate program or as prerequisite courses (only two semesters).
- 4. The veteran/spouse/dependent is not eligible to use benefits for courses taken on an audit basis, or if eliminating a course previously taken and paid for by the VA to remove a punitive grade not counted in GPA calculations via VCU's historical repeat option. The repeated course(s) will be paid for by the VA but the student will incur a debt to the VA for the course(s) eliminated from the student's GPA. The VA does not pay for courses that earn no credit.
- The veteran/spouse/dependent is responsible for ensuring that transcripts are evaluated for transfer credits to be accepted by VCU. Students must submit this information to the Veterans Affairs Office for transmittal to the Veteran's Administration Regional Office.
- 6. The Veterans Affairs Office must be notified by the student/veteran/spouse/dependent if they change, add, drop or withdraw from courses originally approved by the student/veteran/spouse/dependent's academic adviser and certified by VCU's Veterans Affairs coordinator/certifying official.

Professional programs tuition and student fees

Students must pay all applicable tuition, room, board and other fees when due, as described in this section. Students who fail to pay these charges on time may be assessed a late payment fee. The university reserves the right to revise or alter all tuition and fees, regulations pertaining to student fees, and collection procedures at any time. In addition to expenses billed by the university, students should make allowances for books, clothing, supplies, travel and other out-of-pocket costs when figuring their total yearly expenses at the university.

Student financial responsibilities

Students who enroll:

- Are responsible for full payment of tuition and fees generated from their registration.
- Are responsible for full payment of all room, board and other applicable miscellaneous charges.
- Are responsible for keeping a current mailing address on file with Enrollment Services. Refunds and tax forms are not issued to students with inactive mailing addresses.
- Are responsible for establishing an official VCU e-mail address and reading their e-mail on a regular basis, since e-mail will be used to notify students when their invoices are available in the payment and billing site. Paper bills are not sent to enrolled students. Failure to acknowledge and review the

electronic invoice does not relieve responsibility for timely payments. Other important notifications are also sent to the official VCU e-mail address.

Tuition and fees are categorized and described on the Student Accounting Web site at www.enrollment.vcu.edu/accounting/tuition_fees.html.

The university reserves the right to revise or alter all fees, regulations pertaining to student fees and fee collection procedures at any time.

Tuition and fee schedule

Tuition and fees are categorized and described on the Student Accounting website at www.enrollment.vcu.edu/accounting/tuition_fees.html. Questions regarding tuition and fees may be directed to the Student Accounting Department at (804) 828-2228, or by emailing student-decounting-tuition-fees.html. Under the right to revise or alter all fees, regulations pertaining to student fees and fee collection procedures at any time.

University fee

This fee is used by the university to support student facilities, campus development, intercollegiate athletics and other programs. Full-time students pay a flat-rate university fee each semester. Part-time students pay this fee on a percredit basis.

Student activity fee

This fee is used to support social, cultural and other student activities on the Monroe Park Campus. These activities include concerts, plays, student organizations and publications. Full-time students on the Monroe Park Campus pay a flat-rate student activity fee, while part-time students on the same campus pay this fee on a per-credit basis. Students on the MCV Campus are not charged this fee.

Student Government Association fee

This fee is used to support social, cultural and other student activities on the MCV Campus. The fee is charged to all full-time and part-time MCV Campus students. Monroe Park Campus students are not charged this fee.

Student health fee

All full-time students on both campuses must pay the student health fee. Part-time students may participate in the University Student Health Services on an elective basis by paying the student health fee. The University Student Health Services offers unlimited office visits for acute and chronic ailments, after-hours phone advice for an urgent medical problem and most laboratory tests associated with acute illnesses ordered by the USHS staff, among other services. The fee does not cover accidental injury, emergency room visits or hospitalization. More specific information as to what is covered and not covered by the fee is available on the USHS website.

Technology fee

The technology fee is charged to all undergraduate, graduate and professional students in all programs. Full-time students pay a flat rate. Part-time students pay a per-credit-hour rate. The fee is used to provide for students' technological needs and to support university-wide technological initiatives.

Off-campus fees

The university fee, the student activity fee, the student government association fee (except School of Social Work) and the student health fee are not charged to students taking off-campus classes.

Capital outlay fee

This fee is charged to all full-time and part-time non-resident, on-campus students. The fee is mandated by the General Assembly to reimburse the State for debt service costs attributable to non-resident students related to the financing of buildings and equipment.

Online course fee

The online course fee is charged for undergraduate and graduate online courses. The fee covers operational and personnel support to develop and maintain online courses.

Special fee charges

Because of specialized programs, various schools and departments may charge each student additional fees to cover special materials, equipment breakage and other costs. For specific information about special fees, refer to the Student Accounting Department Web site or to the specific school or department section in this bulletin.

Student billing

Students must pay all applicable tuition, fees, room and board when due. Students are notified at their official VCU email address when their bills are available on the billing and payment site. No paper bills are sent to enrolled students. Tuition and fees for preregistered students, along with charges for housing and dining plans where applicable, are due by the official start of each semester. After the registration period all other students are sent a notification at their official VCU email address when their electronic bill has been issued and should pay by the payment due date indicated on the electronic invoice. Students who fail to pay these charges on time may be assessed a late payment fee. The university reserves the right to revise or alter all tuition and fees, regulations pertaining to student fees, and fee collection procedures at any time. In addition to expenses billed by the university, students should make allowances for books, clothing, supplies, travel and other out-of-pocket costs when figuring their total yearly expenses at the university.

The Installment Payment Plan assists students in meeting the cost of their higher education by offering a convenient payment option. The university-administered IPP is offered only during the fall and spring semesters. The plan distributes the cost of tuition, fees, housing and dining charges for a semester into four equal installments.

All students attending the university with current charges of \$100 or more are eligible to participate. All prior semester balances must be paid in full to be eligible.

Students who receive financial aid are also eligible for participation in the IPP. These students may deduct their aid to determine the net total due. If it is \$100 or more, the remaining amount may be paid in installments.

In some cases, a student may receive a financial aid refund, and then subsequent charges for the semester are added to the student's account. If the student has received a refund, he or she is ineligible to participate in the IPP unless the refund has been repaid to the university in full. The student must then pay the first installment and follow the instructions to enroll in the IPP.

There is a \$25 nonrefundable application fee payable with the first installment of each semester. Interest is not assessed on the outstanding balance; however, installments not paid by the payment due date are subject to a late payment penalty. Information about how to participate in the IPP is available online at www.enrollment.vcu.edu/accounting/payment_plan.html.

Drop vs. withdraw

Drop charges are removed to indicate that the student never attended the class. The student is not eligible to receive financial aid, and any financial aid already credited to the student's account based on the original course registration will be removed from the student's account, which may create a balance due to the university.

Withdraw results in the academic grade of W. Charges are assessed and adjusted according to the University Refund Policy. Students may owe a balance to the university.

Refund of tuition and fees

The official university tuition and fee policy, applicable for the fall and spring semesters only (excluding short/nonstandard courses), is outlined below. Refunds are calculated on a course-by-course (per-credit-hour) basis, disregarding the full-time cap amounts. Students who are enrolled full-time and withdraw from courses may not receive a refund.

- Students dropping/withdrawing from courses through the first week of class will be entitled to a 100 percent refund of tuition and fees.
- Students withdrawing from courses through the second week of class may be entitled to an 80 percent refund of tuition and the university fee.
- Students withdrawing from courses through the third week of class may be entitled to a 60 percent refund of tuition and the university fee.

- Students withdrawing from courses through the fourth week of class may be entitled to a 40 percent refund of tuition and the university fee.
- Students withdrawing from courses after the fourth week of class are not entitled to receive a refund of tuition and fees.

The refund policy and deadlines of the English Language Program (ELP) are different from the university's refund policy for academic courses. Details of the policy may be obtained from the English Language Program Office.

A full refund for Holiday Intersession will be granted if the course is dropped before 4:30 p.m. on the day of the first class meeting. Partial refunds are not granted.

A full refund for a short/nonstandard course's tuition and applicable fees will be granted if the course is dropped no later than the day following the first day of a given class. Partial refunds are not granted.

A full refund for summer tuition and applicable fees will be granted if the course is dropped no later than the day following the first day of a given class. (This policy also is applicable if the class does not meet on two consecutive days.) Students reducing their academic course loads to fewer than full time (12 credits for undergraduates and nine credits for graduates) before the end of the last day to drop a course will be entitled to a refund of tuition and applicable fees reflecting the reduced course load. Partial refunds are not granted for the summer session.

Students who are financial aid recipients and withdraw from all courses prior to completing 60 percent of the semester are subject to the Federal Return of Title IV Funds Policy. For more details see Federal Financial Aid Refund Policy.

Refunds will be computed based on the actual withdrawal date certified by the Office of Records and Registration. Refunds will not be made to students who do not attend classes and have not completed the required withdrawal procedure. Refund processing may take approximately two to three weeks. Exceptions to this refund policy are made only in rare instances. Written application for an exception must be filed in the Student Accounting Department to the Refund Appeals Committee within three years.

Refer to the Residential Housing contract and Dining Services' "Terms and Conditions" for housing and dining services refunds.

Requests for refunds that are not generated from the overpayment of financial aid should be made in writing to: VCU Student Accounting Department, P.O. Box 843036, Richmond, VA 23284-3036. Refund request forms are available at the Student Services Centers, 1015 Floyd Ave. or 1000 E. Marshall St., Room 323, and on the Web at www.vcu.edu/enroll/forms.

In accordance with credit card regulations, the university will refund any credit balance that may result on a student's account as the outcome of a credit card payment back to the credit card account. The remaining credit balance, if any, will be refunded to the student.

Students are responsible for paying any increase in charges that may occur after the generation of any refund.

Outstanding charges

Students who fail to meet payments when due will be assessed late payment penalties and will be denied registration for future classes until they have paid all accrued amounts owed. Students with balances owed to the university will not be issued degrees, official transcripts of grades or graduate reports until all charges are paid in full.

Any communication disputing an amount owed, including an instrument tendered as full satisfaction of a debt, must be submitted to the Director of Student Accounting, Student Accounting Department, Virginia Commonwealth University, P.O. Box 843036, Richmond, VA 23284-3036.

Pursuant to Section 2.2-4805 et seq., of the Code of Virginia, and in accordance with rules and regulations promulgated by the State Comptroller and Attorney General of the commonwealth of Virginia, VCU will charge interest, costs and fees on all accounts past due.

VCU is participating in the Virginia Set-off Debt Collection Act of 1981. Under the provisions of this act, a Virginia individual income tax refund will be subject to the university's claim for unpaid balances of tuition and fees.

A student who pays a past due balance with a dishonored check may be subject to having his or her current and/or future registration cancelled. A charge of \$50 is levied for all dishonored checks.

Military services tuition relief, refund and reinstatement quidelines

These guidelines apply to students whose service in the uniformed services (military) has necessitated their sudden withdrawal or prolonged absence from their enrollment at Virginia Commonwealth University and provides for the required re-enrollment of such students. Students are offered the following enrollment secession options:

Drop all courses before the end of the add/drop period and receive a full
reduction of tuition and fee charges. Students residing in university housing
and participating in a dining plan will be released from their housing and
dining service contracts and will receive a prorated refund of these charges.
Students will be asked to sign the drop request form with the director of
military student services indicating that they are not receiving a financial aid
refund. If the reduction of charges results in an overpayment on the account
after any financial aid or third party awards have been reduced, the student
will be issued a refund.

This option might best meet the needs of students who are called to active duty service during the first week of school and did not receive a financial aid refund check or direct deposit.

2. Receive a grade of Incomplete (IM – incomplete military) in one or all courses. Students residing in university housing will be released from their housing and dining service contracts and will receive a prorated refund of these charges. Students who chose to take a grade of IM will not have tuition and fees reduced for these courses because, upon receipt of an approved change of grade, credits will still be earned for the semester. Students will have 12 months from the date that they return from active service to complete the course work and earn a course grade. If a student received financial aid, the amount recovered to the financial aid accounts will follow the Federal Financial Aid Refund Policy.

This option might best meet the needs of students who have essentially completed all course work in a class for the semester, but have yet to turn in a final project, an exam or other materials. It should be agreed upon between the instructor and the student that the remaining course work can reasonably be completed during the 12-month period.

3. Accept administrative withdrawal (WM – withdrawn military) from all courses as of the effective date of the orders to active duty. If this option is elected, a full refund of all tuition, fees and prorated room and dining charges will be made. If a student received financial aid, the amount recovered to the financial aid accounts will follow the Federal Financial Aid Refund Policy. If the reductions of charges results in an overpayment on the account after any financial aid or third party awards have been reduced, the student will be issued a refund.

This option might best meet the needs of students who are called to national service in the middle of a semester and have not completed 75 percent of their class requirements. This option also might best meet the needs of students who are leaving the university during the first week of class and received a financial aid refund check or direct deposit as a result of their financial aid.

4. Students who have completed 75 percent of the course requirements at the time of military activation and, notwithstanding certain exceptions noted below, who meet requirements as determined and agreed upon by the faculty instructor and the student may receive full course credit.

Students may receive full course credit if 75 percent of course requirements have been completed, under certain circumstances. The instructor is responsible for determining what percentage of course requirements have been completed based on factors to include but not limited to contact time, examinations, projects, work experience and clinical experience. The awarding of full credit cannot be made where the incomplete requirements are essential components of the course or program required by law or regulatory bodies, required for competency in the work place, or required to complete licensure examinations.

Leaving the university

To initiate this process, the student must provide the Office of Military Student Services with a copy of his or her active duty orders in addition to a printed copy of his or her course registration for that semester and indicate Option 1, 2, 3 or 4 for each course. If Option 4 is selected, the student must provide documentation from the instructor. The director of military student services will forward all documentation to the university registrar to take the appropriate enrollment action, post the appropriate grades and send a copy of the orders and a copy of the student course request statement to the director of financial aid and the director of student accounting.

Returning to the university

Students who withdrew from the university as a result of military deployment, mobilizations or duty changes are entitled to return without having to requalify for admission so long as the student (a) returns after a cumulative absence of no more than five years and (b) notifies the appropriate admissions office of the intent to return to the university not later than three years after the completion of military service obligation. The student may return to the university in the same program of study. With the consultation of an adviser, a comparable program of study may be chosen for discontinued programs.

Tuition determination and student classification

Tuition is determined by the number of credit hours a student is taking, the student's residency classification, course of study and classification level.

In-state residency

Eligibility for in-state tuition benefits is determined by Section 23-7.4 of the Code of Virginia. Refer to the Determination of student classification for in-state tuition purposes in the About VCU section of this bulletin for the complete code.

All applicants to VCU who want to be classified as Virginia residents must complete the Application for Virginia In-state Tuition Rates included in the graduate application. The residency determination of the applicant will be conveyed at the time of admission. New and continuing students initially classified as non-Virginians for tuition purposes may request a review of the initial residency determination by completing an Application for Change of Domicile available from the Office of Records and Registration (online). The student must present clear and convincing evidence that he or she is not residing in the state primarily to attend school. The application deadline is 30 days prior to the start of the semester, and it is the responsibility of the student to establish or to file an appeal to change his/her residency classification prior to the start of classes for the semester under consideration. In accordance with the Code of Virginia, applications received after the start of the semester must be considered for the next semester. Submit completed applications with documentation to the university residency appeals officer. Processing may require four to six weeks; therefore it is strongly recommended that applications be submitted earlier than the stated deadline.

Our service to students is limited to assuring that they understand the procedures for appealing and that they have access to information about the relevant sections of the Code of Virginia. We provide information about the steps of our process and access to the applicable sections of the statute and the associated guidelines. We provide qualified staff to review the appeals and make decisions based on the information students provide. What we cannot do is provide advisement to students as to how to present their case for review; we cannot become the student's advocate since we must make the decision.

Students approved for a change to in-state status for tuition purposes are notified by mail with copies of their approval letters sent to the Office of Financial Aid and the Student Accounting Department. Students denied this status also are notified by mail. The denial letter informs the student of procedures for appeal of this decision, to include filing an appeal with the University Residency Appeals Committee. Students who submit fraudulent applications, falsify documentation or conceal information will be subject to reclassification, payment of all nonresident fees owed and university discipline.

Please note that a student with in-state status for tuition purposes who exceeds 125 percent of the credit hours needed to complete his program will be assessed a tuition surcharge.

Professional programs general academic regulations

The bulletin of record for a professional student is the Professional Programs Bulletin in effect at the time of the student's official admission to the degree program (as specified in the student's official letter of admission). The effective

bulletin contains the official requirements that the student must complete to earn the degree. A student who does not maintain continuous enrollment must reapply to the program and will be subject to the requirements of the bulletin in effect at the time of readmission. Exception to this policy must be approved by the student's dean or dean designee.

The university reserves the right to revoke any degree, certificate or other university recognition for cause. In addition, any time following the award of a degree, certificate or other university recognition, the university reserves the right to take appropriate action, including, but not limited to, the revocation of such degree, certificate or other university recognition, on the basis of academic misconduct discovered subsequent to, but which occurred prior to, the awarding of the degree, certificate or other university recognition. More specifically, when an action that constitutes a violation of the VCU Honor System leads to a finding that invalidates a major piece of work required for a degree, certificate or other university recognition so that the validity of the degree, certificate or other university recognition is jeopardized, the student or former student will be subject to a sanction that may include (a) rejection of a thesis, dissertation or other work, (b) revocation of a certification or other university recognition or (c) revocation of a degree.

Course interpretation

A single number listing for a course, such as MGMT 648, indicates that it is a onesemester course and may be offered each semester or only one semester each year.

Courses listed with a double number, such as THEA 603, 604 and designated as semester courses, consist of two one-semester courses, either semester of which may be taken without the other.

Courses listed with a double number, such as APPM 575-576, are designated as continuous courses and consist of two one-semester courses, the first of which can be taken without the second, but the second of which cannot be taken without the successful completion of the first. The university reserves the right to withdraw any course or program.

Course listings

Identification of symbols

I A course offered in the first semester
II A course offered in the second semester
I, II A course offered in each semester
I and II A course continued through two semesters

S A course offered in summer sessions

Course numbering

All schools and programs within VCU use the following course numbering system. All course numbers consist of three digits (XXX). The first digit relates to the course level as follows:

0XX noncredit courses

Courses offered for students to make up deficiencies in previous training or to improve certain basic skills.

1XX and 2XX undergraduate, lower level

Courses with these numbers are offered primarily for undergraduate students and may not be used for graduate credit, although graduate students may be required to register for courses at this level to gain a necessary foundation for other course work.

3XX and 4XX undergraduate, upper level

Courses offered for advanced undergraduates and that usually constitute the major portion of specific program work leading to the baccalaureate degree. On occasion, graduate students will be advised by their graduate advisers to enroll in prerequisite 4XX courses. Graduate programs can require that 400-level courses be taken, but credit hours in these courses cannot count toward the graduate degree or in the graduate GPA (effective fall 2004).

5XX introductory graduate courses

Graduate students enroll for credit in these courses through the normal graduate advising system. Departments may limit the number of 500-level courses applicable to a graduate degree program. Advanced undergraduates may enroll in

these courses for credit with consent of the offering department. Credit is applicable toward only one degree unless a student is admitted to a course of study that allows a defined number of shared courses.

5XX professional graduate courses

First year, first professional (medicine, dentistry, pharmacy and physical therapy) courses normally open to students enrolled in the M.D., D.D.S., Pharm.D. and D.P.T. programs. Certain courses of this group may be designated by the department and approved by the University Graduate Council for graduate credit.

6XX, 7XX and 8XX graduate courses

Graduate students enroll for credit in these courses through the normal graduate advising system. Credit is applicable toward only one degree unless a student is admitted to a course of study that allows a defined number of shared courses.

6XX and 7XX professional graduate courses

6XX Second year, first professional (medicine, dentistry, pharmacy and physical therapy [second and third year]) courses normally open only to students enrolled in the M.D., D.D.S., Pharm.D. and D.P.T. programs. Certain courses of this group may be designated by the department and approved by the Graduate Council for graduate credit.

7XX Third and fourth year, first professional (medicine, dentistry and pharmacy) courses normally open only to students enrolled in the M.D., D.D.S. and Pharm.D. programs. Certain courses of this group may be designated by the department and approved by the Graduate Council for graduate credit.

Grade review procedure

If a student thinks that a grade is inaccurate, the situation should be discussed with the faculty member. This will allow the faculty member to explain how the final grade was determined and, if an error is detected, to submit a change of grade.

If the student still thinks that the grade was assigned unfairly, a written appeal should be submitted to the department chair. Upon receipt of the written appeal, the department chair shall provide the student with a copy and explanation of the Grade Review Procedure and shall ensure that the requirements of the Grade Review Procedure are followed.

If the department chair is unable to resolve the complaint, then the dean of the school in which the course was offered will form a grade review committee as described in the Grade Review Procedure policy and will submit its decision to the dean of the school. The decision communicated by the dean of the school in which the program resides is the final decision and will be distributed to the student, faculty member(s) and department chair.

In cases concerning grades awarded for the fall semester, the written appeal must be submitted to the department chair no later than 30 calendar days after the beginning of the following spring semester. In cases concerning grades awarded for the spring semester or summer sessions, the written appeal must be submitted no later than 30 calendar days after the beginning of the following fall semester.

Grading system

Work quality is measured by the four-point grade system with the following equivalents:

Grade symbol and meaning	Grade-point value per semester credit
A	4.0
В	3.0
C	2.0
D	1.0
F	0.0
P/F (Pass/Fail)	0.0
PR	0.0
S/U (Satisfactory/ Unsatisfactory)	0.0

All other grades are temporary, carry no credit and are not used in the computation of a GPA. Refer to the following pages for an explanation of the use of the grades of satisfactory and unsatisfactory in relation to thesis/dissertation/research classes.

The number of grade points earned is computed by multiplying the grade-point value for the letter grade by the number of semester credits for the course. As an example, a student receiving an "A" (i.e., four grade points) in a three-credit course receives 12 grade points.

The grades of accepted transfer courses are not included in the computation of the VCU GPA. Graduate students are not designated as special honors graduates (i.e., cum laude, magna cum laude, summa cum laude) on transcripts or diplomas upon completion of their programs.

No graduate student shall be awarded degree credit for remedial work. Students advised to take any level course for remedial work should be notified in writing that the course credit shall not apply to the degree they are pursuing. Other bodies may rule later, should the student wish to apply the credit to some other degree.

Grade of audit (AU)

Class size permitting, students may register for courses on an audit basis. A student may register for audit only during add/drop and late registration periods as a new registration and not as a change from credit to audit. Auditing a course means a student enrolls in a course, but does not receive academic credit upon completion of the course. A student who registers on an audit basis is subject to attendance regulations of that class and may be administratively withdrawn by an instructor for a violation of class requirements for audit students, before or after the normal eight-week withdrawal deadline. A student who registers for audit may be subject to other course requirements at the discretion of the instructor. Audit students are charged the regular rate of tuition and fees. An audit course is counted as part of the student's semester load in terms of classification as a full-time student. Courses taken for audit, however, do not satisfy minimum enrollment requirements for students receiving graduate teaching or research assistantships, graduate fellowships, or university graduate scholarships.

Grade of continued (CO)

The grade of "CO" may be assigned as an interim grade for those courses that run over several grade reporting periods. The "CO" indicates that the course is not expected to be completed in a single semester and that students must reregister for the course. Upon completion of the course, a final grade will be assigned to the current semester, and the previous "CO" grade(s) will remain. This grade may be assigned only in courses approved for such grading.

Grade of incomplete (I)

If because of circumstances beyond their control, students are unable to meet all the requirements of a course by the end of a semester, the mark of incomplete ("I") may be given. The awarding of a mark of "I" requires an understanding between instructor and student as to when and how the course will be completed. This understanding must be recorded on an Incomplete Grade Assignment Form that is submitted instead of a final course grade. The maximum time limit for submission of all course work necessary for removal of an incomplete is the end of the last day of classes of the next semester following the semester in which the incomplete was incurred (i.e., an incomplete awarded in the fall semester must be converted by the last day of classes in the spring semester, and an incomplete awarded in the spring or summer session must be converted by the last day of classes in the fall semester). At that time, an unremoved grade of incomplete is changed automatically to a failing grade. Individual departments and schools may have more stringent time limits. An extension of the time limit is possible, but must be approved, prior to the expiration date stated above, by the instructor and the dean of the school through which the course is offered. Written approval indicating the new time limit must be filed with the dean.

Grade of pass (P)

This grade is awarded for certain courses to denote satisfactory completion of requirements. Courses assigned the grade of "P" will not be computed in the GPA.

Grade of progress (PR)

The mark of "PR" may be assigned only in courses approved for such grading. Unlike the mark of "I," "PR" will not automatically be changed to a failing grade at the end of the succeeding semester.

Grades of satisfactory (S), unsatisfactory (U) or fail (F) in research, thesis and dissertation courses

All research, thesis, and dissertation credits taken as part of the final project (thesis/dissertation/project) for awarding a graduate degree are to be graded each semester as "S," "U" or "F." There is no limit to the number of these credits a student may take while pursuing completion of the degree as long as the student receives a grade of "S" for each credit. An individual department may terminate a student who does not progress satisfactorily as indicated by a "U" grade in research, thesis/dissertation/project course work. A student who receives a final grade of "F" in the thesis or dissertation will be terminated from the graduate program.

Grade of withdrawn (W)

The grade of "W" indicates that the student has officially withdrawn from a course or has been administratively withdrawn for nonattendance. No student who has officially withdrawn from a course or who has been administratively withdrawn for nonattendance may attend subsequent meetings of the course.

Immunization requirements

The commonwealth of Virginia and VCU require that all full-time students supply validated immunization records to University Student Health Services. This requirement must be completed prior to registering for second semester. Failure to meet these requirements will result in a hold placed on the student's second semester registration. The hold can be removed only upon receipt of the students documented records.

The immunization record must be completed fully and accurately. There are two ways a student may fulfill all requirements:

1. Students may have their health care provider transfer the information from their medical records and sign the form.

or

2. Students may complete the top demographic section of the Certificate of Immunization and attach a copy of official documents from undergraduate institutions, military records, high school or other records that fulfill all requirements to the Certificate of Immunization.

A copy of the Certificate of Immunization, which details the necessary immunizations, is available on the student health Web site at: www.students.vcu.edu/health/docs/immunizations.pdf [PDF].

Students who cannot provide documented evidence of all required immunizations must see their health care provider, health department or Student Health Services to complete all requirements.

MCV Campus programs

Warning, probation and suspension are defined by the program of study. Consult program adviser for further details.

University rules and procedures

Each member of the VCU community has certain responsibilities, rights and privileges. These are stated in some detail in the VCU Rules and Procedures, and all students are responsible for being familiar with provisions of this document. The rules and procedures are printed in the VCU Insider and also are available at the Office of Judicial Affairs and Academic Integrity. This document also provides for the process whereby disciplinary action, including separation from VCU, may be taken against a member of the university community as a result of behavior that is in violation of the prohibited conduct as stated in the VCU Rules and Procedures

Students at VCU have a right to appeal actions of an academic nature. If such action involves a course grade, the Grade Review Procedures should be followed. If such action involves computing, the Computer Ethics Policy should be followed. If such action involves dishonesty, the Academic Integrity Policy for Monroe Park Campus students should be followed.

All students enrolled in courses on the MCV Campus are subject to the VCU Honor System. Copies of the Honor Code are available in Office of Records and Registration, Sanger Hall, Room 1-055, and the Office of the Associate Dean of Student Affairs, MCV Campus, Hunton Student Center, Room 205.

In addition to those standards of conduct described in VCU Rules and Procedures and the MCV Campus Honor Code, which applies to all students enrolled on the MCV Campus, a student enrolled at the university may be dismissed from the school in which enrolled for failure to meet prescribed academic program requirements. Students appealing termination from a graduate program/department should first pursue appeals at the department and/or the school level. After receiving a decision from the department and/or school, a student has the option of filing an appeal with the dean.

VCU seeks to foster insight, imagination, creativity, resourcefulness, diligence, honesty and responsibility as well as the education of the men and women enrolled in its graduate programs. Such an enterprise can take place only where the highest standards of academic integrity exist.

Academic dishonesty is the giving, taking or presenting of information or material by students with the intent of unethically or fraudulently aiding themselves or others on any work that is to be considered in the determination of a grade or the completion of academic requirements. Students in doubt regarding any matter related to the standards of academic integrity in a given course or on a given assignment should consult with the faculty member responsible for the course before presenting the work.

Withdrawal policies

Leave of absence

Students may request a leave of absence from a program through written appeal to their advisers. The adviser will forward the request, following departmental governance procedures, along with a recommendation to the dean, who will respond for the university. Students who do not register for courses for more than one calendar year and who have not been granted a leave of absence must reapply for admission to VCU and to the degree program.

Withdrawal from the university

To withdraw officially from VCU, a student must submit a complete Official Withdrawal Form to Records and Registration before the end of the 10th week of classes. The Official Withdrawal Form is obtained from Harris Hall, Room 1100, or Sanger Hall, Room 1-055. Failure to complete this form may result in the assignment of failing grades in all or some of the courses. The student's permanent academic record will indicate a grade of withdrawn ("W") for all courses in which the student was enrolled.

Health-related withdrawals

While students are expected to work toward completion of their degrees without interruption, health-related problems may necessitate withdrawal from the university.

- Some schools require a statement from a physician indicating the nature and severity of the condition, when a student should stop attending classes, and the estimated date of return to school.
- In the event that a student's health problem poses a danger to the student, to
 patients or to others with whom the student may come in contact and the
 student is unable or refuses to initiate steps to withdraw as stated above,
 administrative withdrawal of the student may be made by the dean upon
 consultation with the appropriate faculty and a qualified physician.
- Because curricular and course content changes may occur and a student's
 progress toward a degree may be affected adversely because of an extended
 absence, specific time periods may be imposed by individual schools with
 respect to the length of time allowed for absence from school. If there is a
 delay in return beyond the allotted time period without written consent of the
 dean, the student may petition for return with advanced standing.
- Some schools require that prior to return to school, the student must submit to
 the dean a statement from a physician. This statement should document that
 the condition that necessitated the withdrawal has been corrected to a point
 where the student can complete successfully all curriculum requirements with
 reasonable accommodation including classroom, laboratory, clinical and
 fieldwork experience.



2014-15 Graduate and Professional Programs Bulletin

College of Humanities and Sciences

The faculty and staff of the College of Humanities and Sciences are dedicated to excellence in teaching, research and public service. The mission of Virginia Commonwealth University provides the framework for this pursuit of excellence.

Teaching and learning are central to the college, and the college is central to educational and intellectual life at VCU. The college meets the educational needs of a diverse student body, provides general education for all undergraduate students of the university, preparatory programs for the health sciences, engineering and law, and educates future teachers in the liberal arts and sciences. The college offers comprehensive undergraduate, graduate and professional programs of study that link a foundation of understanding and knowledge with skills on which students can build careers, become responsible citizens and continue lifelong learning.

Scholarship, creative work and professional accomplishment are essential to teaching and learning. The college is responsible for advancing understanding and increasing knowledge for its own sake, for the educational benefit of its students, and for the good of the larger community.

In both teaching and research, the College of Humanities and Sciences seriously upholds the responsibilities of being part of a public, metropolitan university. Through service and public teaching, the college meets the challenges and opportunities afforded by VCU's urban environment and by its location in the capital of the commonwealth.

The college achieves national and international recognition through the success of its students, the advancement of the disciplines and professions represented by its programs, and through the individual and collaborative research of its faculty.

Administration

828 West Franklin Street P.O. Box 842019 Richmond, Virginia 23284-2019 (804) 828-1674 Fax: (804) 828-1576

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James Coleman

Professor and Dean

Alison Baski

Professor and Executive Associate Dean

Robert Tombes

Professor and Associate Dean for Research

James Mays

Associate Professor and Associate Dean for Undergraduate Academic Affairs

History

The College of Humanities and Sciences was organized in 1966 (then the School of Arts and Sciences) as a combination of several existing departments at Richmond Professional Institute: Biology, Chemistry, English, Foreign Languages, and History and Political Science. The departments of Philosophy and Religious Studies, Mathematical Sciences, Physics, Psychology, Sociology and Anthropology, and Political Science were developed or added subsequently.

Arts and Sciences began its first graduate programs in 1969 with master's programs in psychology and sociology. Master's programs in biology and mathematical sciences and a doctoral program in clinical psychology were soon to follow in 1971. In 1974, English/English education began a master's program offered cooperatively by the Department of English and the Division of Teacher Education of the School of Education. In that same year the graduate program in chemistry, a cooperative venture between the departments of Chemistry on the Monroe Park Campus and Pharmaceutical Chemistry on the MCV Campus, was transferred administratively to the School of Arts and Sciences. Beginning in 1976, a master's degree was created in mass communications, while in 1978, a doctoral program in social policy and social work started in cooperation between the Department of Sociology and Anthropology and the School of Social Work.

In July 1981, the School of Arts and Sciences and the Department of Mass Communications were organized into the College of Humanities and Sciences and the School of Mass Communications. The Master of Fine Arts in Creative Writing commenced in 1983 followed by the M.S. in Physics in 1984. Three years later, the Department of Mathematical Sciences established the M.S. in Computer

Science program, and finally, a master's degree in history was initiated in 1994 through the Department of History.

Effective July 1, 1994, the departments of Criminal Justice, Public Administration and Urban Studies joined the college from the dissolved School of Community and Public Affairs. Each department brought to the college both master's and post-baccalaureate certificate programs within their disciplines. The Public Administration program was merged with the Political Science program to form the Department of Political Science and Public Administration. The Ph.D. in Public Administration program was initially incorporated into the newly merged department and now resides in the Center for Public Policy.

Accreditation

Chemistry (bachelor's degree)
The American Chemical Society

Forensic science (bachelor's and master's degrees)
Forensic Science Education Programs Accreditation Commission

Mass communications (bachelor's degrees in the Richard T. Robertson School of Media and Culture)

Accrediting Council on Education in Journalism and Mass Communications

Psychology (doctoral degrees: clinical, counseling) American Psychological Association

Graduate information

Graduate programs

The College of Humanities and Sciences offers the following graduate degree programs:

Biology, M.S.
Chemistry, M.S. and Ph.D.
Clinical Psychology, M.S. and Ph.D.
Counseling Psychology, M.S. and Ph.D.
Creative Writing, M.F.A.
English, M.A.
Forensic Science, M.S.
Health Psychology, Ph.D.
History, M.A.

Mathematical Sciences, M.S. applied mathematics mathematics operations research statistics

Media, Art, and Text, Ph.D.
Physics, M.S.
Psychology, M.S. and Ph.D.
Sociology, M.S.
Systems Modeling and Analysis, Ph.D.

Post-baccalaureate certificates

Applied Social Research (graduate) Gender Violence Intervention (graduate) Statistics (undergraduate)

In addition to these degree programs, the College of Humanities and Sciences offers selected graduate courses in the Department of Philosophy and the School of World Studies (foreign languages and religious studies), but does not offer graduate degree programs in these areas.

Graduate admission requirements

In addition to the general requirements for admission to graduate studies as stated in the Graduate Studies at VCU chapter of this bulletin, persons seeking admission to any of the graduate programs in humanities and sciences should:

- Have a bachelor's degree in the discipline in which application for graduate study is made or, in some programs as noted, a bachelor's degree in some other appropriate area.
- Submit Graduate Record Examination (GRE) scores (some departments require the scores on the advanced GRE within the discipline; some departments accept LSAT and MAT scores in lieu of GREs).

 Have submitted letters of recommendation that comment on the applicant's ability to undertake graduate study in the specified area.

All applications will be considered in terms of the specific requirements for admission noted in the description of the individual programs and of the applicant's ability to perform satisfactorily in the program for which he/she has applied. The judgment of that ability will be based on the supporting material submitted with the application. Some graduate programs must limit enrollment to a fixed number of the best-qualified applicants. Final action on admission is taken by the dean of the Graduate School in consultation with the College of Humanities and Sciences and the program concerned.

Applicants whose applications reach the university after July 1 for the fall semester and after Nov. 15 for the spring semester may not have their applications processed in time for registration. The applicant whose application arrives late may be considered for admission as a special student, but there is no guarantee that the special student later will be accepted into a degree program. Refer to the programs section of the Graduate School Web site for specific deadlines for all graduate programs.

Graduate registration

Although most students register for the first semester, which begins in August, they may arrange to begin graduate work during the spring semester with the exception of the programs in clinical and counseling psychology.

Scholarships, assistantships, fellowships and other financial assistance for graduate students

The College of Humanities and Sciences seeks to attract and support graduate students of the highest caliber and to prepare them, through research and instruction, to meet local and national needs for highly trained men and women. Recognizing that financial limitations may inhibit some qualified students from applying, the college attempts to inform students of the options of various loans, grants and work-study opportunities that are available to them as well as assist them in financing their education by offering various forms of financial aid and facilitating the process of seeking financial assistance from external sources. Additionally, the college believes that the experience of being a teaching or research assistant reinforces the learning that takes place in the classroom. The value of teaching assistants also is recognized as being beneficial to the college's undergraduate programs.

Types of financial aid that are available to graduate students fall into three basic categories: aid that does not have to be repaid (grants, scholarships and tuition waivers), aid that does have to be repaid (loans) and aid that enables students to earn a portion of their school costs (work-study, graduate teaching assistantships and graduate research assistantships).

Offers of financial aid are based on financial need and/or skill and competency. Financial need is determined by information contained in the Federal Application for Student Aid (FAFSA) completed by the student. Not all financial aid is based on financial need. To ascertain your eligibility for the different types of financial aid, contact the VCU Office of Financial Aid at 901 W. Franklin St., P.O. Box 843026, Richmond, VA 23284-3026, (804) 828-6669, and the department to which you will be applying. The university library has reference books listing other types of scholarships and grants. International students should contact: Office of International Education at 916 W. Franklin St., P.O. Box 843043, Richmond, VA 23284-3043, (804) 828-6016.

Graduate teaching assistantships and graduate research assistantships are forms of financial aid that provide teaching and research positions for graduate students within their field of study. These are not loans and do not have to be repaid because the student is actually earning income for services rendered. Usually graduate assistants must work the equivalent of 20 hours per week. Assistantships are awarded to students who have demonstrated academic excellence. Individual departments award the assistantships, which usually include payment of tuition; the teaching and/or research duties of graduate assistants vary among departments. Graduate students interested in seeking these teaching and research positions are advised to contact the departments to which they will apply for admission.

Graduate students applying for financial assistance should remember the following tips:

- · Apply early.
- Use federal tax forms to complete the FAFSA.
- Save copies of all forms completed, including tax returns.

 Check with the specific department for application requirements and deadlines

Students should assume they are eligible, not ineligible.

* Also see departmental listings.

The student adviser and the graduate committee

All departments offering graduate degrees in the College of Humanities and Sciences provide graduate students with advising either through a single adviser, the student's graduate committee or a departmental graduate committee. For details, students should consult the departmental director of graduate studies or the department chair.

Graduate degree requirements

- Full-time graduate status shall consist of a minimum of nine and a maximum
 of 15 credits per semester. No more than 12 semester credits may be earned
 in a summer session. See the Graduate Studies at VCU chapter of this
 bulletin for course load requirements for students awarded graduate
 assistantships.
- Graduate students are required to maintain an overall GPA of 3.0 ("B").
 Students who do not maintain a "B" average during the course of their program may be dropped from the program at any time on recommendation of the appropriate department committee to the dean of the Graduate School. If students earn less than a "B" on 20 percent or more of all attempted credits, their graduate status must be reviewed for continuation by the appropriate department committee.
- At least half of the credits required in the student's program must be those
 designated as exclusively for graduate students; that is, those at the 600 level
 or above.
- Graduate students must have earned an overall GPA of 3.0 ("B") in order to receive a degree.

In addition to these requirements and those set forth in the Graduate Studies at VCU chapter of this bulletin, students must meet the requirements for specific degrees set forth in the departmental listings. Students also should consult the Continuous Enrollment Policy stated in the Graduate Studies at VCU section of this bulletin

VCU requires registration for a defined credit-hour level during both the didactic and research phases of advanced degree training. For programs requiring the preparation of a thesis or dissertation, there is no obligatory linkage between the accumulation of credit hours and an expectation that a degree be awarded.

As a guide to monitoring the timely completion of the degree requiring a thesis or dissertation within the present enrollment framework, the accumulation of 80 credit hours for a master's degree and 180 credit hours for a doctoral degree can be taken to be reasonable credit maxima. Unless stated otherwise, these figures apply only to programs offered by the College of Humanities and Sciences.

Students are required to submit in advance of the date when they expect to receive a degree a Graduation Application Form to the dean of the College of Humanities and Sciences. Deadlines for the submission of the Graduation Application Form are listed in the academic calendars online at http://www.vcu.edu/academiccalendars; for departmental deadlines the student should consult the departmental adviser. Individual departments may require additional forms.

Appeal procedures

Graduate students in the College of Humanities and Sciences have the right to appeal course grades or other academic actions on the grounds of a breach of due process. See the Graduate Studies at VCU section of this bulletin for a summary of the Grade Review Procedure. An appeal of an academic action other than a grade review is governed by the Graduate Student Academic Appeal Procedure. A copy of this document can be obtained from department offices.

Richard T. Robertson School of Media and Culture

The Robertson School of Media and Culture prepares effective and skilled communicators through quality instruction, advising and student services, based on real-world applications. Through research, professional service and scholarship in applied communications, the school advances the knowledge and practice of a multidisciplinary and evolving media environment. The school values truth,

ethics, creativity, innovation, collaboration, cultural diversity, shared governance and community engagement.

The school offers a Bachelor of Science in Mass Communications with specialization in one of three sequences: advertising, journalism and public relations. The school also awards the Master of Science in Mass Communications, with concentrations in the areas of integrated PR and advertising, multimedia journalism and strategic public relations.

Administration

901 West Main Street Temple Building, Room 2216 P.O. Box 842034 Richmond, Virginia 23284-2034 (804) 828-2660 Fax: (804) 828-9175

Hong Cheng

robertson.vcu.edu

Professor and Director

Jeff South

Associate Professor and Director of Undergraduate Studies

June Nicholson

Professor and Director of Graduate Studies

Natasha Long

Coordinator of Student Services

Mass communications courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to mass communications (MASC) courses.

Graduate information

Admission requirements for graduate study

All areas are open to graduates of accredited colleges and universities. Applicants must satisfy the general requirements for admission to graduate programs in the Graduate School and the College of Humanities and Sciences (see the College of Humanities and Sciences guidelines in this bulletin). In addition, they should hold a baccalaureate degree in an area appropriate to the program to which they are applying and a GPA that indicates the ability to pursue graduate work. Although the type of undergraduate degree is not critical to admission, the programs require approved undergraduate curricula or the equivalent in order to grant full admission.

Mass Communications, Master of Science (M.S.) with a concentration in integrated public relations and advertising with Fudan University [dual degree]

Graduate program director

June O. Nicholson

Professor and director of graduate studies, Richard T. Robertson School of Media and Culture

jnichols@vcu.edu (804) 257-0251

Program website: robertson.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Mass Communications, Master of Science (M.S.) with a concentration in multimedia journalism

Mass Communications, Master of Science (M.S.) with a concentration in strategic public relations

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Mass Communications, Master of Science (M.S.) with a concentration in integrated public relations and advertising with Fudan University [dual degree]

Degree:	Semester(s)	Deadline	Test
M.S.	of entry:	dates:	requirements:
	Spring	Jan 15 (preferred	GRE – general
		consideration)	TOEFL
		Mar 15	(International
			students only)

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Pass the entrance examination for postgraduate studies in the School of Journalism at Fudan University
- Attain a qualified English proficiency level (i.e., greater than 600 for TOEFL or equivalent for iBT test)
- Attain a GRE general test level of more than 1050 with no less than 500 for verbal (or equivalent for revised GRE)

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goals

The Richard T. Robertson School of Media and Culture prepares effective and skilled communicators through quality instruction, advising and student services, based on real-world applications. Through research, professional service and scholarship in applied communications, the school advances the knowledge and practice of a multidisciplinary and evolving media environment. The school values truth, ethics, creativity, innovation, collaboration, cultural diversity, shared governance and community engagement.

The M.S. in Mass Communications with a concentration in integrated public relations and advertising is offered in collaboration with Fudan University in Shanghai, one of VCU's 16 recognized international partners, and VCU's Richard T. Robertson School of Media and Culture. It is designed to educate Chinese students for the practice, in China, of professional public relations and/or advertising. Because in many agencies and organizations public relations and advertising are integrated, we are integrating the two professional disciplines in one degree program. The program is for Chinese students who have undergraduate degrees from a Chinese institution and who are already working or aspire to work in China for a public relations or advertising agency or an agency that combines the two persuasive communication disciplines. It is also open to students in the U.S. with the same undergraduate education and a desire to work in an internationally active public relations or advertising agency that does business in Asia/China. The program will prepare its students to function at a higher professional level than they can attain with their current academic and professional credentials.

Student learning outcomes

- Demonstrate higher-level skills of the public relations management function, including strategy development and critical thinking
- Communicate clearly and effectively in written and spoken forms appropriate for strategic public relations practice, audiences and the purposes they serve
- Demonstrate ability to conduct research and evaluation to support strategic public relations decision-making
- Effectively apply tools and technologies appropriate to managing the process for strategic public relations

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

 Credit hour requirements: This degree requires a minimum of 31 credit hours beyond the baccalaureate, of which 18 credit hours are from VCU and 13 credit hours — preparatory foundation courses and thesis supervision — are taken at Fudan University's School of Journalism. At least one-half of the credit hours presented for graduation must be at the 600 level or higher. Upon completion of all requirements, students in this dual master's degree program will receive both the M.S. in Mass Communications from VCU and the Master of Literature from Fudan University.

The dual degree program generally takes three academic years. The first three semesters are typically completed at Fudan. Students will continue their studies in VCU's Richard T. Robertson School of Media and Culture for three semesters (second semester and summer of the second academic year and fall semester of the third academic year). Students return to Fudan for the final semester.

Other requirements: All students are required to demonstrate proficiency in a suite of software programs commonly used by public relations and advertising practitioners before enrolling in their first VCU course.

Curriculum requirements

Courses	Credit hours
Course requirements: Fudan University [1]	13
JOUR6003 Research Methods of Communication	2
JOUR6005 Media Management	2
JOUR6007 Marxist Journalistic Ideology	2
JOUR6008 Research on Journalistic History and Theory	2
Choose from list of recommend electives (Fudan University) below	5
Thesis taken at Fudan University	
[1] The following preparatory foundation courses at Fudan (10 credit hours) are required but do not count toward the M.S. degree: Advanced English (2+2), Political Theory Training (2+2), Specialized English (2).	
Course requirements: Virginia Commonwealth University	18
MASC 671 Strategic PR in a Digital Environment	3
MASC 672 Strategic PR Research and Evaluation	3
MASC 675 Strategic PR Management	3
MASC 682 Strategic Media Relations	3
MASC 683 Strategic PR in a Global Environment	3
MASC 695 Fieldwork/Internship (elective course)	1-3
Total graduate credit hours required (minimum)	31
Recommended electives (Fudan University)	
JOUR6009 Journalistic Practice	3
JOUR6010 The History of China's Journalism Thoughts	3
JOUR6011The Study of Communication	3
JOUR6012 Cyber Communication	3

JOUR6013 Marketing Communication	3
JOUR6014 Consumer Behavior	3
JOUR6015 The Study of PR	3
JOUR6016 The Study of Current Publishing	3
JOUR6017 The Study of Current Newspapers	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

The mass communications graduate handbook is available on the Robertson School website at robertson.vcu.edu/about/advising/handbooks-and-worksheets.

Mass Communications, Master of Science (M.S.) with a concentration in multimedia journalism

Graduate program director

June O. Nicholson

Professor and director of graduate studies, Richard T. Robertson School of Media and Culture

jnichols@vcu.edu (804) 257-0251

Program website: robertson.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Mass Communications, Master of Science (M.S.) with a concentration in strategic public relations

Mass Communications, Master of Science (M.S.) with a concentration in integrated public relations and advertising with Fudan University [dual degree]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Mass Communications, Master of Science (M.S.) with a concentration in multimedia journalism			
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE – general
	Fall	Jul 1	g
	Spring	Nov 1	
Admission note	P.º		

The school may admit other student candidates who submit materials beyond the review deadlines, depending on available space.

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- An undergraduate degree in journalism or a related field or several years of professional journalism experience
- An undergraduate GPA that exceeds 2.7 overall
- A GRE (general test) score that indicates the ability to pursue graduate work
- A detailed CV showing work experience in journalism or appropriate educational credentials
- Three recommendations from persons who are qualified to give information concerning the applicant's ability for the specific program of study proposed
- A personal statement detailing specific journalism career goals
- 7. A portfolio of work in journalism

Students who have not completed baccalaureate course work in journalism or who have not had the appropriate professional experience may be required to take undergraduate courses as a foundation. These do not count toward the graduate degree.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

> General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The Richard T. Robertson School of Media and Culture prepares effective and skilled communicators through quality instruction, advising and student services, based on real-world applications. Through research, professional service and scholarship in applied communications, the school advances the knowledge and practice of a multidisciplinary and evolving media environment. The school values truth, ethics, creativity, innovation, collaboration, cultural diversity, shared governance and community engagement.

The M.S. in Mass Communications with a concentration in multimedia journalism is designed to prepare students to work in a highly competitive and multipleplatform (print, broadcast, online/digital) news environment. The program is for recent graduates who have an undergraduate degree in journalism or a related field, or for more veteran journalists who want to upgrade their professional skills.

Student learning outcomes

- 1. Demonstrate higher-level skills in concept building with a focus on critical thinking, and in the design of journalism news stories and packages with a
- Communicate clearly and effectively in written and multimedia platforms to serve news audiences
- Demonstrate the ability to conduct basic research that is applicable to journalism and multimedia
- Effectively apply tools and technologies to multimedia news stories and packages as appropriate for the news industry and other communication workplaces

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- 1. Credit hour requirements: This degree requires 36 credit hours beyond the baccalaureate, 30 of which are in the journalism discipline. Students take an additional six credit hours in a collateral area outside of mass communications. Students in this program learn the theory and practice of iournalism in an immersion news environment and can further specialize through graduate electives, projects and stories in any number of "beat" areas. For example, students can focus on coverage of health or the environment or concentrate on learning about international media coverage. At least one-half of the credit hours presented for graduation must be at the 600 level or higher.
- Other: The program is designed so that students will take three courses each semester (fall and spring). During each semester, two of the courses will be offered in the evenings and one will be offered online. Thus, students will be able to complete the course work over two years of study.

Curriculum requirements

ENVS (600-level)

HSEP (600-level)

Courses	Credit hours
Course requirements	
MASC 611 Research Methods in Mass Communications	3
MASC 642 Online Journalism I	3
MASC 643 Online Journalism II	3
MASC 644 Computer-assisted Reporting	3
MASC 645 Visual Journalism	3
MASC 646 Convergence Law and Ethics	3
MASC 684 Multiplatform Storytelling	3
MASC 685 The Business of Media	3
MASC 686 International Journalism	3
MASC 688 Converged Media Applications or MASC 699 Thesis	3
Electives (Choose courses from list of recommended electives below.)	6
Total graduate credit hours required (minimum)	36
Recommended electives	
Note: Choices for elective courses are to be approved by the director	
of graduate studies.	
MASC 692 Independent Study	1-3
MASC 695 Internship/Fieldwork	1-3
ADLT (600-level)	3
CRJS (600-level)	3
ECON (600-level)	3
EDUS (600-level)	3
ENGL (600-level)	3

3

3

INFO (600-level)	3
MKTG (600-level)	3
MSTM (600-level)	3
PADM (600-level)	3
SLWK (600-level)	3
SPTL (600-level)	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

The mass communications graduate handbook is available on the Robertson School website at robertson.vcu.edu/about/advising/handbooks-and-worksheets.

Mass Communications, Master of Science (M.S.) with a concentration in strategic public relations

Graduate program director

June O Nicholson

Professor and director of graduate studies, Richard T. Robertson School of Media and Culture

jnichols@vcu.edu

(804) 257-0251

Program website: robertson.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Mass Communications, Master of Science (M.S.) with a concentration in integrated public relations and advertising with Fudan University [dual degree] Mass Communications, Master of Science (M.S.) with a concentration in multimedia journalism

Apply online at graduate.admissions.vcu.edu.

Admission requirements

public relation	s		·
Degree:	Semester(s)	Deadline	Test
M.S.	of entry:	dates:	requirements:
	Summer	Jan 15 (preferred consideration) Mar 15	GRE-general

Admission note: The school may admit other student candidates who submit materials beyond the review deadlines, depending on available space.

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. A current resume
- Portfolio material from undergraduate and/or graduate course work and/or professional experience
- 3. An academic background in public relations (university or professional accreditation program) and appropriate public relations experience

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goals

The Richard T. Robertson School of Media and Culture prepares effective and skilled communicators through quality instruction, advising and student services, based on real-world applications. Through research, professional service and scholarship in applied communications, the school advances the knowledge and practice of a multidisciplinary and evolving media environment. The school values truth, ethics, creativity, innovation, collaboration, cultural diversity, shared governance and community engagement.

The M.S. in Mass Communications with a concentration in strategic public relations trains a new generation of communications professionals who are able to function in high-level management positions and apply sophisticated strategic thinking to accomplish organizational objectives.

Student learning outcomes

- Demonstrate higher-level skills of the public relations management function, including strategy development and critical thinking
- Communicate clearly and effectively in written and spoken forms appropriate for strategic public relations practice, audiences and the purposes they serve
- Demonstrate ability to conduct research and evaluation to support strategic public relations decision-making
- Effectively apply tools and technologies appropriate to managing the process for strategic public relations

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: This degree requires 30 credit hours beyond the baccalaureate, including six hours of approved elective courses in areas such as nonprofit management and marketing. At least one-half of the credit hours presented for graduation must be at the 600 level or higher.
- 2. Other: Students take weekend classes (Friday evenings and all day Saturday) as a cohort over four semesters. Continued full-time public relations employment is encouraged during the program. In addition, one of the program's unique features is a two-week study abroad experience, an expectation of students while they are enrolled in the MASC 683 Strategic PR in a Global Environment. The study tour is led by a full-time faculty member. The cost of the study abroad program is not included in the program's tuition.

Curriculum requirements

Courses

Course requirements	
MASC 671 Strategic PR in a Digital Environment	3
MASC 672 Strategic PR Research and Evaluation	3
MASC 675 Strategic PR Management	3
MASC 676 Public Relations Ethics and Law	3
MASC 682 Strategic Media Relations	3
MASC 683 Strategic PR in the Global Environment (study abroad)	3
MASC 694 Strategic PR Campaign Design and Implementation	3
SCMA 651 Organizational Communication	3
Financial electives (Choose courses from list 1 below.)	3
Theory and application electives (Choose courses from list 2 below.)	3
Total graduate credit hours required (minimum)	30
Note: Choices for elective courses are to be approved by the director of graduate studies.	
List 1: recommended financial electives	
ACCT 507 Fundamentals of Accounting	3
ECON 500 Concepts in Economics	3
FIRE 520 Financial Concepts of Management	3
SCMA 524 Statistical Elements of Quantitative Management	3
List 2: recommended theory and application electives	
MGMT 540 Management Theory and Practice	3
MGMT 641 Organizational Leadership and Project Team Management	3
MGMT 655 Entrepreneurship	3
MGMT 656 Best Practices in Leadership	3
MGMT 691 Topics in Management (negotiations)	3
MKTG 570 Concepts and Issues in Marketing	3
MKTG 671 Marketing Management	3
MKTG 672 Concepts in Consumer Behavior	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's

academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Credit hours

The mass communications graduate handbook is available on the Robertson School website at robertson.vcu.edu/about/advising/handbooks-and-worksheets.

Media, Art, and Text, Doctor of Philosophy (Ph.D.)

Graduate program director

Eric G. Garberson, Ph.D. Associate professor, Department of Art History eggarberson@vcu.edu (804) 828-7295

Additional contact

Thom Didato

Graduate programs adviser, Department of English tndidato@vcu.edu (804) 828-1329

Program website: matx.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Media, Art, ar	nd Text, Doctor of Philoso	phy (Ph.D.)	
Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE-General
	Fall	Jan 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission.

- Applicants must hold a master's degree (M.A., M.F.A., M.S.) in a relevant field.
- Send the following, in the formats indicated, by email to the graduate programs adviser. Note: Materials submitted in any other way, as specified below (on paper, disk, etc.) will be discarded without review.
 - a. Writing sample demonstrating the ability to write clearly, analyze effectively and conduct original research in advanced doctoral-level seminars. This may be a master's thesis, a graduate-level seminar paper or a published essay. Submit as a PDF by email.

- b. Statement of purpose describing the applicant's interest, motivation and goals in pursuing this degree. The statement should specifically address the importance of interdisciplinarity to the applicant's academic goals, and it should also offer evidence of preparation for the study of media, art, and text. The applicant should indicate the specific area of study and research to be pursued at VCU and identify faculty who might potentially direct dissertation research. Submit as a PDF by email. Note: This is a required separate submission of the same essay included in the online application.
- c. Academic curriculum vitae or professional resume listing all colleges and universities attended and degrees earned, all professional and academic positions held, all publications and/or exhibitions, technical skills, and any other relevant information. Include URLs for personal and/or professional websites. Submit as PDF by email.
- d. Letters of recommendation from three present or former instructors or other individuals qualified to evaluate the applicant's ability to engage in interdisciplinary study at the doctoral level. Have recommenders submit letters as PDFs directly to Thom Didato using only academic or professional email accounts.
- 5. Applicants who wish to pursue creative work at VCU must also submit a portfolio. Those with an M.F.A. who do not wish to continue creative work should consult with the MATX director about this requirement. Materials submitted should demonstrate excellence in studio or professional practice and the potential to do graduate-level work in media, art, and text. Portfolios will be reviewed by the MATX admissions committee as well as relevant faculty in the School of the Arts and the Richard T. Robertson School of Media and Culture. Please observe the following guidelines:
 - Those working in 2-D or 3-D mediums should provide 20 images of representative work arranged chronologically, beginning with the most recent.
 - b. Those working in sound and time-based media, as well as those in the performing arts, should provide clips totaling no more than 10 minutes.
 - c. Those working across media may submit a combination of the above.
 - d. The portfolio should be accompanied by title, date, media and dimensions of the work, as well as a brief statement or other information that will help the admissions committee in evaluating the work.

Small files illustrating 2-D or 3-D work may be submitted as JPEGs or PDFs via email. Sound or video files should be posted to Vimeo or Sound Cloud with a functioning link submitted by email. Portfolio materials may also be posted to a personal or professional website and the link submitted by email.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

VCU's interdisciplinary doctoral program in media, art, and text is a joint endeavor of the Department of English, the School of the Arts and the Richard T. Robertson School of Media and Culture. The program prepares students primarily to teach at the college or university level, although some pursue careers in related media fields. MATX emphasizes the historical and theoretical foundations essential to the scholarly study of media, both old and new, broadly defined. It provides an intellectually stimulating environment that encourages students to work both collaboratively and independently, as well as across and between disciplines and media. Students maintain a base in their primary area of research, which is usually but not always the field in which they have done prior graduate work.

Student learning outcomes

- Develop advanced communication skills in writing, speaking and the use of multimedia
- Demonstrate broad knowledge of history and theory as the foundation for interdisciplinary work in a specialized facet of media, art, and/or text
- 3. Develop competence in interdisciplinary and disciplinary research methods and responsible conduct of research
- 4. Develop specialized knowledge in relevant fields to support dissertation and subsequent research
- Demonstrate the ability to conduct independent research and produce new, specialized knowledge within the broad parameters of media, art, and text
- 6. Develop a strong basis for ongoing professional practice

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- 1. Credit hour requirements: Students in the MATX program are required to earn a minimum of 42 graduate-level credit hours beyond the master's. At least one-half of the credit hours presented for graduation must be at the 600 level or higher. The 42-hour curriculum comprises 36 hours of course work and a minimum of six hours of dissertation research. Course work includes a core of four required courses taken during the first two semesters by all incoming students. Three doctoral seminars provide a shared historical and theoretical foundation for the study of media, art, and text, while a workshop offers the opportunity to develop and expand professional and/or creative skills relevant to the student's career goals and research focus. In addition, all students will take a research methods course in a field relevant to their anticipated area of dissertation research. Beyond the core, students select 21 hours of elective credit hours from course offerings in disciplines relevant to their research interests and career goals. The program offers a topics seminar focused on the history, theory or practice of media, art, and text. Independent study and internships are also available as electives. While enrollment in courses with the MATX prefix is guaranteed to matriculated MATX students, enrollment in other graduate courses is subject to the conditions established by individual units. Together the core and the electives support the interdisciplinary work of the dissertation, which is an original scholarly examination of some aspect of media, art, and/or text. It may include work in media other than text. It is supervised by a committee consisting of four or five members drawn from disciplines relevant to the research topic.
- Grade requirements: To graduate, degree applicants must achieve an overall grade point average of 3.0 (B) on a 4.0 scale with a grade of C in no more than two courses. The GPA for graduation will be based on all graduate courses attempted after acceptance into the program.
- Requirements for admission to candidacy: Before beginning formal
 dissertation research, students must complete all 36 hours of required course
 work, both stages of the e-portfolio and the requirements described below.
 Upon completion of these, the student will apply for degree candidacy.
- 4. Dissertation committee: The dissertation committee consists of the director (who must hold a Ph.D.) and three or four additional members whose scholarly knowledge and interests are relevant to the project. The committee must have at least one member from each of the sponsoring units (Department of English, School of the Arts, Richard T. Robertson School of

Media and Culture). All must be members of VCU's graduate faculty. Appropriate faculty from outside VCU may serve on committees (but not as director) with the approval of the MATX director and the graduate dean. It is the student's responsibility to assemble the committee, in consultation with the dissertation director. Committees will not be appointed by the program.

- 5. E-portfolio: Work on the e-portfolio will begin in MATX 604 in the spring of the first year. There are no technical specifications, and content will include, but is not limited to, work done in the first two years in the program. It will take the form of a website and must demonstrate the technical skills (Web design, audio, video, etc.) relevant to the student's work on the dissertation and the career sought after VCU. Submission is a two-stage process:
 - a. Stage 1 (May of the first year): a three- to five-page design rationale for the portfolio site along with a mock-up or rough structure
 - b. Stage 2 (April of the second year): a finished, live site accompanied by a five-page statement relating it to the student's work inside and outside the program and outlining how it uses media techniques to promote a specific professional and/or creative identity (Note: Each submission is graded pass/fail and may be repeated once. A second failure results in automatic termination from the program.)
- Competency: Candidates must demonstrate competency in a skill or technique relevant to the dissertation research or planned professional career. The dissertation committee approves and administers the competency portion. Graded pass/fail, the test may be repeated once.
- 4. Bibliography exam: Candidates will complete an exam on a reading list of 20 to 30 sources relevant to or supportive of the dissertation topic. The dissertation committee approves and administers the bibliography exam. Graded pass/fail, the test may be repeated once.
- 5. Dissertation prospectus and prospectus defense: The prospectus is a 15- to 20-page document that indicates the significance of the proposed research, gives a short review of relevant literature, states the research question, specifies the proposed methodology and indicates how the project lays the foundation for the anticipated academic or professional career. It also includes a work plan for the completion of research and writing, as well as a complete bibliography. The prospectus is defended orally before the dissertation committee, which may accept, reject or require revisions. The defense may be repeated once.
- 6. Dissertation and dissertation defense: The dissertation is an original, interdisciplinary and scholarly examination of a topic relevant to an aspect of media, art, and/or text. It may include work in media other than text. Given the varied nature of doctoral research, there is no set time frame for completion of a dissertation. It is expected, however, that the dissertation will take about two years after attaining candidacy, but it must be defended within the eight-year time limit for completion of the doctoral degree. The dissertation will be defended orally before the dissertation committee. Successful defense of the dissertation completes the requirements for the degree.

Curriculum requirements

Courses	hours
MATX 601 Texts and Textuality	3
MATX 602 History of Media, Art, and Text	3
MATX 603 History of Interdisciplinarity and Multimedia	3
MATX 604 Workshop	3
MATX 897 Dissertation Project	6
Choose one methods course from list 1 below	3
Choose elective courses from list 2 below (Elective courses other than those listed may be taken with approval of the MATX program director and the offering department.)	21
Total graduate credit hours required (minimum)	42
List 1: Methods courses	_
ARTH 690 Historiography and Methodology in Art History	3

ENGL 605 Introduction to Scholarship in English Studies	3
GSWS 602 Feminist Research Epistemology and Methods	3
MASC 611 Research Methods in Mass Communications	3
List 2: Recommended electives	
ARTH 591 Special Topics in Art History	1-6
ARTH 690 Historiography and Methodology of Art History	3
ARTH 722 Seminar in 19th-century Art	3
ARTH 723 Seminar in 20th-century Art	3
ARTH 741 Seminar in Art and Theory	3
ARTH 742 Seminar in Trans-millenial Art and Ideas	3
ARTH 743 Seminar in Art and Representation	3
ARTH 791 Special Topics in Art History	3
ENGL 560 Studies in British Literature and Culture	3
ENGL 570 Special Topics in American Literature and Culture	3
ENGL 605 Introduction to Scholarship in English Studies	3
ENGL 611 Authors	3
ENGL 614 Cultural Discourses	3
ENGL 620 Intertextuality	3
ENGL 624 Text and Contexts	3
ENGL 627 Genres	3
ENGL 629 Form and Theory of Poetry	3
ENGL 630 Form and Theory of Fiction	3
ENGL 631 Form and Theory of Creative Nonfiction	3
ENGL 661 Themes in Interdisciplinary Studies	3
GSWS 501 Feminist Theory	3
GSWS 602 Feminist Research Epistemology and Methods	3
GSWS 620 Theorizing Sexuality	3
GSWS 624 Gender and Cultural Production	3
GSWS 691 Topics in Gender, Sexuality and Women's Studies	1-3
KINE 591 Topics in Contemporary Media	3
KINE 690 Graduate Seminar	4
KINE 695 Advanced Sound	3
MASC 611 Research Methods in Mass Communications	3
MASC 645 Visual Journalism	3
MASC 684 Multiplatform Storytelling	3
MASC 688 Converged Media Applications	3
MASC 691 Topics in Mass Communications	1-3
MATX 690 Seminar in Media, Art, and Text	3
MATX 696 Internship	1-3
MATX 791 Directed Study (may be taken for a maximum of 12 credit	1-3
hours)	

Degree candidacy requirements

Cradit

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

The MATX student handbook is available at matx.vcu.edu/program/handbook.

School of World Studies

On May 16, 2003, the Board of Visitors of Virginia Commonwealth University approved the creation of the School of World Studies within the College of Humanities and Sciences. The school is a creative, interdisciplinary grouping of subject areas in the humanities and the social sciences that provides its students with the knowledge, skills and experience necessary for success in an increasingly interdependent, globalized 21st century.

Sensitivity to the values, beliefs and structures of other cultures is a necessary characteristic of community and business leaders of the next century. The ability to live and work alongside those who are perceived as different from oneself and to recognize similarities among all humans will become an increasingly essential attribute of an educated citizen.

To achieve its mission, the School of World Studies actively fosters and promotes a wide range of endeavors, including the establishment of interdisciplinary undergraduate and graduate programs with an international focus across the campuses, and develops close ties with such programs as African American studies, womens studies, English, history, life sciences and other units throughout the university. In addition there are collateral requirements such as experiential learning through an approved internship, service-learning course or study-abroad program, the fulfillment of a World Passport, and advanced language skills.

Although the programs currently encompassed by the school are primarily at the undergraduate level, the School of World Studies offers a select number of graduate courses.

Administration

312 North Shafer Street P.O. Box 842021 Richmond, Virginia 23284-2021 (804) 827-1111 Fax: (804) 827-3479

www.worldstudies.vcu.edu

Mark Wood

Associate Professor and Director

Angelina Overvold

Associate Professor and Associate Director

Degree programs

The School of World Studies offers baccalaureate degrees in the following fields:

Anthropology – Bachelor of Science **Foreign Language** – Bachelor of Arts

- French
- German
- Spanish

International Studies

Religious Studies - Bachelor of Arts

Minors are awarded in these areas:

African studies

Anthropology

Arabic and Middle Eastern studies

Asian and Chinese studies

Catholic studies

European studies

French

German

International social justice studies

Islamic studies

Italian studies

Judaic studies

Latin American studies

Mediterranean studies

Religious studies

Russian studies

Spanish

World cinema

Undergraduate certificates are awarded in these areas:

- International management studies (in conjunction with the School of Business)
- · Spanish/English translation and interpretation

Information regarding curricula is provided on the respective program pages.

Languages

The School of World Studies offers students significant opportunities to broaden their knowledge of diverse cultures through language study, including:

Arabic

Biblical Hebrew

Chinese

French (major and minor)

German (major and minor) Hindi

Italian

Latin

Portuguese

Russian (minor)

Spanish (major and minor)

Zulu

In cases where the appropriate level of instruction is unavailable, faculty advisers will assist the student in identifying language study options at other U.S. institutions or abroad.

Study abroad

Summer study-abroad programs provide students with opportunities for short-term immersion in the language, culture and civilization of the countries they visit. A list of current VCU study abroad opportunities can be found at www.international.vcu.edu/abroad. VCU is a member of the International Student

Exchange Program, which offers junior year abroad programs at one of 40 universities worldwide. For more information about study abroad or the World Studies Community Scholars, visit the School of World Studies website at www.worldstudies.vcu.edu.

School of World Studies courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

The World School offers courses in the following areas:

Use this link to see anthropology (ANTH) courses.

Use this link to see foreign literature in English translation (FLET) courses.

Follow these links to geography (GEOG) courses or the (GEOZ) laboratories.

Use this link to see international studies (INTL) courses.

Use this link to see religious studies (RELS) courses.

Use this link to see world studies (WRLD) courses.

Foreign language courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Students planning to take a foreign language course at VCU must take the placement test in order to determine proper course selection. Specific information about the placement test is available on the School of World Studies website at www.has.vcu.edu/wld/placement.

Students who wish to complete a language through the intermediate level or higher are required to **consecutively** complete 101, 102 and 201 or the equivalent. Students may then choose either 202 or 205 to complete the intermediate level.

The School of World Studies offers courses in the following languages:

Use this link to see Arabic (ARBC) courses.

Use this link to see Chinese (CHIN) courses.

Use this link to see foreign languages (FRLG) courses.

Use this link to see French (FREN) courses.

Use this link to see German (GRMN) courses.

Use this link to see Italian (ITAL) courses.

Use this link to see Latin (LATN) courses.

Use this link to see Portuguese (PORT) courses.

Use this link to see Russian (RUSS) courses.

Use this link to see Spanish (SPAN) courses.

Applied Social Research, Certificate in (Post-baccalaureate graduate certificate)

Graduate program director

Jennifer A. Johnson, Ph.D. Chair, Sociology jajohnson3@vcu.edu (804) 828-6826

Additional contact

Rachel S. Bobbitt bobbittrs@vcu.edu (804) 828-8847

Program website: sociology.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Applied Social Research, Certificate in (Post-Baccalaureate graduate certificate)				
Degree:	Semester(s)	Deadline	Test	
Certificate	of entry:	dates:	requirements:	
	Fall	Jul 1	^	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Students possessing a B.A. or B.S. degree and beginning level skills in statistics/research methods are eligible for admission into the certificate program.
- Relevant course or research experience will be considered in evaluating admission and substitution of courses. Equivalency tests are available for required courses in statistics and methods.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

This certificate program is designed to enable practitioners to acquire additional knowledge and skills in applied social research without necessarily pursuing a graduate degree and provide marketable job/career skills for graduate degree-seeking students in sociology as well as other graduate programs. Because the certificate program involves a limited number of credit hours and coordinates with the type of statistics and methods courses offered in a number of graduate degree programs, it may be pursued simultaneously with other graduate programs such as sociology, social work, public administration, social policy and urban services. At the same time, individuals seeking more limited, specialized training may pursue the certificate independently.

Student learning outcomes

- To enable practitioners to acquire additional knowledge and skills in applied social research
- 2. To provide marketable job/career skills for graduate degree-seeking students in sociology as well as other graduate programs

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students in the applied social research certificate
 program are required to earn a minimum of 18 graduate-level credit hours
 beyond the baccalaureate.
- Grade requirements: An overall GPA of 3.0 is required for award of the certificate, and no more than three credit hours of C may be earned in the certificate program curriculum.

Curriculum requirements

Courses	Credit hours
Required courses	
SOCY 601 Methods of Sociological Research	3
SOCY 602 Applications of Methods of Sociological Research	3
SOCY 603 Seminar in Population Studies or SOCY 656 Social	3
Network Analysis	
SOCY 608/STAT 608 Statistics for Social Research	3
SOCY 693 Internship	3
Choose one course from list of recommended electives below	3
Total graduate credit hours required (minimum)	18

Recommended electives

GVPA 625 Public Policy Analysis	3
PSYC 631 Evaluation Research: Psychological Perspectives	3
SOCY 603 Seminar in Population Studies	3
SOCY/PADM 605 Survey Research Methods	3
SOCY 656 Social Network Analysis	3
URSP 621 Introduction to Geographic Information Systems	3
URSP 622 Community Socioeconomic Analysis Using GIS	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Interdisciplinary Studies, Master of (M.I.S.) with a concentration in cinema and language with the University of Cordoba in Spain and the University of Messina in Italy

Graduate program director

Angelina E. Overvold, Ph.D. Associate director, School of World Studies aovervol@vcu.edu (804) 827-3416

Program website: global.vcu.edu/transatlantic

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Interdisciplinary Studies, Master of (M.I.S.), with a concentration in interdisciplinary mathematics and science leadership.K-8 mathematics specialist option

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Interdisciplinary Studies, Master of (M.I.S.) with a concentration in cinema and language with the University of Cordoba in Spain and the University of Messina in Italy

Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.I.S.	entry:		GRE-General
	Fall	May 1	

Special requirements:

It is the student's responsibility to obtain the visas necessary to study in Europe and the United States. However, students accepted in the cinema and language concentration will receive assistance with visa applications.

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. For admission, domestic applicants must submit evidence of knowledge of Italian or Spanish at the "intermediate high" level according to American Council on the Teaching of Foreign Languages guidelines. Domestic students must submit evidence of knowledge of the second language at the "intermediate high" level according to ACTFL guidelines before beginning classes in Europe. Before departure for their first semester abroad (the fall semester at Cordoba begins on Oct. 15), domestic students must function on the following minimum level:
 - a. Italian: PLIDA (Progetto Lingua Italiana Dante Alighieri) or equivalent, B1 or similar level. The B1 level indicates the capacity to understand spoken and written texts on familiar topics and to interact in the language to express opinions and explanations in an elementary way.
 - b. Spanish: DELE or equivalent, intermediate-mid/threshold level B1 or similar level. The "Certificado Inicial de Español" proves candidates have sufficient knowledge of the language to handle situations which require an elementary use of the language.
- 3. The achievement of superior language proficiency in their field is one of the most important aims of this concentration. VCU students' proficiency in Spanish and Italian will be assessed by School of World Studies' foreign language faculty according to the guidelines of the ACTFL. (The proficiency guidelines are available on the ACTFL website.)
- 4. For admission, European students must submit transcripts showing that they have received satisfactory grades during their undergraduate studies (minimum GPA of 3.0) and in their first year of graduate study (with no grade lower than C). Students must also pass the TOEFL or the ELP administered by VCU (iBT score of 100; CBT score of 600; or IELTS academic band score of 6.5) and submit a satisfactory GRE score before beginning classes at VCU.
- Upon review of the application and all supporting documentation, the transatlantic curriculum in cinema and language program coordinator will contact applicants and provide further information.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The cinema and language concentration in the M.I.S. broadens education and career options and is designed to help develop the crucial analytical and communication skills, knowledge base and international experiences needed to pursue a career in the global marketplace.

Student learning outcomes

- Students will demonstrate competencies to analyze cinema, as well as other visual media, as a means of cultural and artistic expression, as an audiovisual language and as a frame for complex cultural dynamics.
- Students will be able to analyze film and other visual media (e.g. Internet in general, social media, documentary films, etc.) from different cultures, drawing on a general frame of intercultural communication.
- Students will achieve fluency in English, Spanish and Italian, especially in their professional field.
- 4. Students will prepare for international careers through engaged learning and transatlantic team-building experiences with internships in cultural events such as the Taormina Film Festival, the French Film Festival and the Filmoteca de Andalusia.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- 1. Credit hour requirements: The cinema and language concentration requires 44 credits (semester hours) of course work, with 20 credits taken at the University of Cordoba in Spain and the University of Messina in Italy and 24 hours taken at VCU. At least one-half of the credit hours presented for graduation must be at the 600 level or higher. Each fall, cohorts of VCU and European students (from University of Messina and University of Cordoba) begin a two-year (four-semester) graduate program. Typically, European students spend the first semester of their first year at the University of Cordoba, second semester at the University of Messina and remaining two semesters at VCU. Domestic students spend their first and second semesters at VCU, third semester at the University of Cordoba and fourth semester at the University of Messina.
- 2. Other requirements: The final requirement of the program is completion of a directed research project, during which the student is registered for GRAD 697 Directed Research. This is a capstone project culminating in a synthesis of the academic course work and internship experiences as outlined in the student's curriculum plan. Before registration for GRAD 697, a student must have submitted a final project proposal, which has been approved by the concentration graduate program director and the M.I.S. graduate program director. The research project must be graded by a VCU graduate faculty member and a student must receive a grade of A or B in GRAD 697 in order to graduate from the program.
- 3. Master's-level candidacy: After receiving approval to begin the final directed research project, a student must submit and receive approval for degree candidacy. Approval of degree candidacy must be obtained before a student can begin the final semester of study. Because of the sequencing of cinema and language course work, approval for the final project and degree candidacy may need to occur simultaneously.

Curriculum requirements

Courses	Credit hours
Virginia Commonwealth University	24
FREN 511 French Civilization	1-4
GRAD 697 Directed Research	6
GSWS 602 Feminist Research Epistemology and Methods (Other graduate-level methods courses in the social sciences may be taken with prior permission)	3
MATX 690 Seminar in Media, Art, and Text	6

WRLD 530 Concepts in World Cinema	3
WRLD 535 World Filmmakers	3
University of Cordoba, Spain	9
L-ART/06 Theory and Analysis of Cinema	2
L-ART/06 Cinema and City	2
L-LIN/05 Dialogues between Cinema and Other Arts	2
L-LIN/05 Independent Research Project	3
University of Messina, Italy	11
L-ART/06 History of Cinema	2
L-ART/06 Internship at the Taormina Film Festival	3
L-LIN/01 Cinema Translation and Dubbing	2
LFIL-LET/10 Inter-semiotic Relationships: Literature, Theatre and	2
Cinema	
M-DEA/01 Sociology and Anthropology of Culture	1
M-PED/03 Intercultural Education and Pedagogy	1
Total graduate credit hours required (minimum)	44

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Interdisciplinary Studies, Master of (M.I.S.), with a concentration in interdisciplinary mathematics and science leadership/K-8 mathematics specialist

Graduate program director

Aimee J. Ellington, Ph.D.

 $\label{lem:condition} Director, M.I.S.\ interdisciplinary\ mathematics\ and\ science\ leadership\ program\ ajellington@vcu.edu$

(804) 828-5521

Program website: math.vcu.edu/graduate-programs/mis-specialists

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Interdisciplinary Studies, Master of (M.I.S.), with a concentration in cinema and language with the University of Cordoba in Spain and the University of Messina in Italy

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Interdisciplinary Studies, Master of (M.I.S.), with a concentration in interdisciplinary mathematics and science leadership/K-8 mathematics specialist

Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.I.S.	Fall	May 1	GRE-General or
			MAT

Special requirements:

Upon review of the application and all supporting documentation, the mathematics/science leadership program coordinator will contact applicants to schedule interviews to develop programs of study that will detail specific courses to be taken and the institutions offering those courses.

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- At least three years of successful K-8 mathematics and/or science teaching experience
- 2. Three recommendations: at least one from an immediate supervisor or principal and at least one that addresses leadership potential
- Submission of satisfactory scores on either the GRE or MAT from a current test (fewer than five years old) (Provisional admission may be granted pending fulfillment of this requirement.)
- A written statement of intent that provides evidence of at least three years of experience in teaching mathematics and/or science for kindergarten through eighth grades
- 5. Interview to develop program of study (Program director will contact student after initial review of application.)

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The interdisciplinary mathematics and science leadership concentration in the M.I.S. program is designed for in-service teachers of mathematics for kindergarten through eighth grades. In designing their individual programs, students, in conjunction with their advisers, may select courses offered by VCU mathematics, science and education departments and courses offered by other collaborating Virginia colleges and universities. The Graduate School, the College of Humanities and Sciences, the School of Education and the departments of Mathematics and Applied Mathematics and Teaching and Learning administer the program.

Student learning outcomes

- Students will write mathematics (not including mathematical proofs) clearly, concisely and correctly.
- 2. Students will solve mathematical problems.
- Students will use multiple representations to correctly describe mathematical ideas.
- Students will study K-12 children's work and use it to demonstrate knowledge of children's thinking.
- 5. Students will write mathematical proofs clearly, concisely and correctly.
- 6. Students will collaborate on projects.
- Students will read and comprehend mathematical works and mathematics education works, including national and state standards.
- 8. Students will analyze and synthesize mathematics education literature.
- 9. Students will make effective written and oral presentations to demonstrate their understanding of mathematical ideas and mathematics education ideas.
- Students will (a) analyze and develop rich mathematical tasks for children and adults, (b) study and implement models of mathematics coaching, (c) study and implement professional development models.
- Students will study and implement models of formative and summative assessment
- Students will study and implement effective methods of communicating with teachers and administrators.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students in the interdisciplinary mathematics and science leadership concentration are required to earn a minimum of 39 graduate-level credit hours beyond the baccalaureate. The discipline focus areas are required to be in mathematics and either the sciences or mathematics/science education. At least one-half of the credit hours presented for graduation must be at the 600 level or higher.
- 2. Other requirements: At least 18 of the 39 credits, including the final project, must be granted by VCU. Up to six transfer credits may be approved, and the remainder of the credits must be from consortium partners as approved by the students' advisers, the VCU Graduate School and the Mathematics and Science Leadership Advisory Committee. A maximum of six hours may be taken as a nondegree-seeking student before admission to the program.
- The final project must be supervised by a VCU graduate faculty member, may be in mathematics, science or education and must include an indication of the relationship of the subject of the project to teaching at the kindergarten-through-eighth-grade level.

Curriculum requirements

Courses	Credit hours
MATH 661 Number and Operations (a prerequisite for all other required courses)	3
MATH 662 Geometry and Measurement	3
MATH 663 Functions and Algebra	3
MATH 664 Statistics and Probability	3
MATH 665 Rational Numbers and Proportional Reasoning	3
TEDU 657 Mathematics Education Leadership I	3
TEDU 658 Mathematics Education Leadership II	3
TEDU 659 Mathematics Education Leadership III	3
TEDU 680 Externship Proposal Seminar	3
TEDU 700 Externship	3
Elective courses chosen from the list below with adviser approval (One three-credit course must be taken in the area of education.)	9

Total graduate credit hours required (minimum)	39
Recommended electives	
BIOL (500- and 600-level)	3
CHEM (500- and 600-level)	3
MATH (500- and 600-level)	3
TEDU (500- and 600-level)	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Sociology, Master of Science (M.S.)

Graduate program director

Julie A. Honnold, Ph.D. jhonn@vcu.edu (804) 828-6680

Additional contact

Jennifer A. Johnson, Ph.D. Chair, Sociology jajohnson3@vcu.edu (804) 828-6826

Program website: sociology.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Sociology, Master of Science (M.S.), accelerated Bachelor of Science in Sociology (B.S.) to master's

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Sociology, Master of Science (M.S.)			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.S.	entry:		GRE-General
	Fall	Apr 1 (Mar 1 for	
		financial aid)	
	Spring	Oct 1	

Special requirements:

*Deadlines are designed to allow sufficient time for application review and admission processing. Applications may be submitted after the deadline; however, sufficient time for processing cannot be guaranteed. Any application submitted too late for current semester processing will be considered for the following semester.

A limited number of assistantships are available for qualified applicants. Applicants for assistantships should have their files complete by Feb. 15. Individuals not applying for assistantships should file their applications for graduate study as early as possible to permit adequate review and to ensure consideration. Applications that reach VCU after July 1 for the fall semester and after Nov. 15 for the spring semester may not be processed in time for registration.

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission

- Admission priority is given to students with a minimum undergraduate GPA of 3.0 on a 4.0 scale. Students with GPA below 3.0 will be evaluated by the director of graduate studies and members of the graduate faculty on the basis of the GRE scores, recommendations from references and other data submitted by applicants.
- 2. To be admitted as a regular graduate student, applicants should have completed 24 semester hours in the social sciences (including history), with at least 12 credits in sociology. Undergraduate work in sociology should include a survey of sociological theory, research methods and statistics. Students who otherwise are qualified for admission but lack this background may be admitted provisionally, with the stipulation that they may be requested to make up any deficiencies specified by the director of graduate studies.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The goal of the graduate program in sociology is to facilitate the development of theoretical, methodological and substantive competence appropriate for students' interests and career goals. In keeping with VCU's role as an urban institution, the program focuses on the study of urban social problems, policy alternatives and strategies for change.

Student learning outcomes

- 1. Students will demonstrate an understanding of the key concepts developed by classical and modern sociological theorists.
- Students will demonstrate an ability to apply a detailed comprehension of diversity and of inequality to the analysis of social issues.
- Students will demonstrate advanced knowledge of sociological concepts such as culture, roles, norms, social structure, social institution, socialization and stratification.
- Students will demonstrate knowledge of methodological approaches and data analysis techniques in sociology.
- Students will demonstrate the ability to use sociological theory in the critical analysis of sociological issues and research questions.
- Students will demonstrate the ability to present clear, organized and coherent arguments in the analysis of sociological issues.
- Students will demonstrate the ability to use methodological skills in the critical evaluation of existing sociological research and the discussion of alternative research methods.

Degree requirements

In addition to general VCU Graduate School graduation requirements, the following requirements apply:

- 1. Credit hour requirements: Students in the M.S. in Sociology program are required to earn a minimum of 36 graduate-level credit hours beyond the baccalaureate. At least one-half of the credit hours presented for graduation must be at the 600 level or higher.
- Other requirements: Students are required to apply for either the thesis or applied sociology (non-thesis) option by the end of their second semester in the program. The thesis option is completed through on-campus courses, and the applied option may be completed through either on-campus or online courses. Degree requirements for the two options are shown below. Incoming students apply as either on-campus students (both options) or online students (applied option only). Incoming students choosing the online applied option must make that decision prior to beginning the program and continue as such until obtaining the degree. For the thesis option, a master's thesis will be developed under the guidance of a thesis committee (three faculty members including a thesis adviser) and must be defended publicly.

Curriculum requirements

SOCY 502 Contemporary Sociological Theory

Thesis option

Courses	Credit hours
Required core courses	9
SOCY 502 Contemporary Sociological Theory	3
SOCY 601 Methods of Sociological Research	3
SOCY 602 Application of Methods of Sociological Research	3
Thesis option courses	27
SOCY/STAT 608 Statistics for Social Research	3
SOCY 698 M.S. Thesis [1]	1-6
Electives (Choose courses from list of recommended electives below.)	18-23
Total graduate credit hours required	36
Applied sociology option (non-thesis)	
Courses	Credit hours
Required core courses	9

3

SOCY 601 Methods of Sociological Research	3
SOCY 602 Application of Methods of Sociological Research	3
Applied sociology option courses	27
	3
Statistics for Social Research	
SOCY 693 Internship	6
Electives (Choose courses from list of recommended electives below.)	18
Total graduate credit hours required	36

Recommended electives [2]

ADMS (600-level)

ANTH (500-level)

CRJS (500- to 600-level)

ECON (500- to 600-level)

GEOG (500- to 600-level)

GRAD (600-level)

GRTY (500- to 600-level)

GSWS (500- to 600-level)

GVPA (500- to 600-level)

HADM (600-level)

NURS (500- to 600-level)

PADM (500- to 600-level)

PHIL (500- to 600-level)

POLI (500-level)

PSYC (600-level)

RHAB (500- to 600-level)

SBHD (600-level)

SEDP (500- to 600-level)

SOCY (500- to 600-level)

SOCY 692 Independent Study [3]

SLWK (600-level)

SPTL (600-level)

URSP (500- to 600-level)

- [1] A maximum of six credits of SOCY 698 may be presented toward the degree.
- [2] A maximum of six credits from outside sociology may be presented toward the degree.
- [3] A maximum of six credits of SOCY 692 may be presented toward the degree.

Degree candidacy requirements

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Sociology, Master of Science (M.S.), accelerated Bachelor of Science in Sociology (B.S.) to master's

Graduate program director

Julie A. Honnold, Ph.D. jhonn@vcu.edu (804) 828-6680

Additional contact

Jennifer A. Johnson, Ph.D. Chair, Sociology jajohnson3@vcu.edu (804) 828-6826

Program website: sociology.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Sociology, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

The accelerated B.S. and M.S. program allows qualified students, with a major in sociology, to earn both degrees in a minimum of five years by completing approved graduate courses during the senior year of the undergraduate program. The program will provide students with the opportunity to expand and deepen their knowledge of sociology, enhance their credentials for the job market, and/or prepare for further professional education. Students in the program may count up to 12 hours of graduate courses toward both the B.S. and M.S. degrees. Thus, the two degrees may be earned with a minimum of 144 hours instead of the 156 required if the degrees are pursued separately.

The program is restricted to students who have demonstrated a clear interest in sociology. Minimum qualifications for admittance to the program include completion of 90 undergraduate credit hours with an overall GPA of 3.0, and a minimum of nine credit hours in sociology with a GPA of 3.3. Prior to being formally considered for admittance and before enrolling in graduate courses, the student must complete the graduate school application, submit GRE general aptitude scores and supply supporting information required for admission. All persons admitted to the program must meet the graduate student standards of performance, e.g., maintain a 3.0 GPA, and satisfactorily complete all requirements for the degree.

The director of graduate studies will provide guidance to students in this program. Students who are interested in this program should consult with the director of graduate studies or the director of undergraduate studies before they have completed 90 credits. Both directors may be contacted for more information about admission procedures.

Requirements for the Bachelor of Science in Sociology include the completion of a minimum of 120 credits. Students in the accelerated program may take up to six graduate sociology credits in each of the final two semesters of their undergraduate course work. These courses are shared credits with the graduate program, meaning that they will be applied to both undergraduate and graduate degree requirements. A maximum of 12 graduate credits may be taken prior to completion of the baccalaureate degree.

The B.S. degree will be awarded when the student has completed all requirements for the undergraduate degree, which may include the 12 graduate sociology credits. The graduate sociology courses that may be taken, once a student is admitted to the program, include: SOCY 502, SOCY/STAT 508, SOCY/STAT 608, SOCY 601 and other SOCY graduate courses, with the approval of the director of graduate studies. Such courses may serve as an elective requirement for the M.S. degree and an elective for the undergraduate major. All accelerated program students must have their schedules approved by the director of graduate studies prior to registration.

Refer to the program search function of the online VCU Bulletins for a complete description of both programs, including application instructions and deadlines.

Department of African American Studies

Aashir Nasim

Associate Professor and Department Chair

www.afam.vcu.edu

The Department of African American Studies at Virginia Commonwealth University provides an educationally rich environment in which students and scholars research, learn and teach about the past and present realities of people of African descent. Employing a wide range of theories, perspectives, methods and tools, African American Studies faculty explore social, political, economic and cultural realities and connections between the experiences of persons in Africa and throughout the African Diaspora. The department emphasizes experiential learning, offers study abroad opportunities and internships.

African American studies courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to African American studies (AFAM) courses.

Department of Biology

The Department of Biology offers programs leading to baccalaureate, master's and doctoral degrees; the doctoral degree is offered through the Integrative Life Sciences program. Students may specialize within many areas, such as molecular and cellular biology, genetics, aquatic and terrestrial ecology, systematics, physiology, neurobiology, and developmental biology. Students also may develop an interdisciplinary focus to their degree program, for example within areas such as bioinformatics, cancer biology, forensic science and environmental science.

In addition to the courses offered by the Department of Biology, graduate students may enroll in graduate courses offered through VCU Life Sciences and these departments at the VCU Medical Center: Anatomy and Neurobiology, Biochemistry, Biostatistics, Human and Molecular Genetics, Microbiology and Immunology, Pathology, Pharmacology and Toxicology, and Physiology and Biophysics. Visit the Department of Biology's Web site: www.has.vcu.edu/bio.

Administration

Donald R. Young

Professor and Department Chair

Jennifer K. Stewart

Associate Professor and Director of Graduate Studies

www.has.vcu.edu/bio

Biology courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

The following courses do not apply toward the major in biology: BIOL 101, BIOZ 101, BIOL/ENVS 103, BIOL 201, BIOZ 201, BIOL 205, BIOZ 205, PHIS 206, PHIZ 206, BIOL 209, BIOZ 209, BIOL 217, and BIOL 332. A C grade or better in each prerequisite course is required for enrollment in all biology courses BIOL 205 or higher that have prerequisites listed in their course descriptions.

Follow these links to biology (BIOL) courses or the (BIOZ) laboratories.

Biology, Master of Science (M.S.)

Graduate program director Jennifer K. Stewart, Ph.D. Director of graduate studies jstewart@vcu.edu (804) 828-0650 Program website: biology.vcu.edu/graduate/ms

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Biology, Master of Science (M.S.)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
M.S.	Fall	Jan 15	GRE
	Spring and Summer	By special permission of graduate director	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree in biological or related science or equivalent
- 2. Appropriate college-level background in mathematics, chemistry and physics
- Three letters of recommendation pertaining to the applicant's potential ability as a graduate student in biology
- 4. Student's written statement concerning career and research interests
- 5. Transcripts of all previous college work
- 6. Satisfactory scores on the GRE (general test)

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The Department of Biology prepares graduate students for:

- 1. Admission to doctoral programs
- Employment in laboratory and field programs in private industry or government agencies
- 3. Teaching in secondary schools
- 4. Admission to schools of medicine, dentistry and veterinary medicine

Student learning outcomes

- Acquire training within the chosen subdiscipline of biology through course work and thesis research
- Learn the most recent advances in the respective field through classroom instruction, seminars and informal discussions with faculty and peers
- 3. Learn cutting-edge research techniques through thesis research

- 4. Develop skills for presentation of thesis research
- 5. Develop skills for publication of research

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Master of Science degree candidates are required to take a minimum of 30 graduate credit hours. A maximum of six credit hours from graduate course work taken at other institutions may be transferred if they meet approval of the department.
- Grade requirements: Receipt of a grade of C or lower in two courses
 constitutes automatic dismissal from the graduate program in biology.
 Courses with a grade of C or lower cannot be applied to satisfying the degree
 requirements.
- 3. Other requirements: All graduate students are required to write a thesis proposal and a formal thesis following a prescribed format. In order to initiate thesis research, the thesis proposal must be approved by the student's graduate committee and the chair of the department, and the student must be approved for degree candidacy. Each student will be required to pass a final examination, which will be primarily a defense of the thesis. Students may specialize within many areas, such as molecular and cellular biology, genetics, aquatic and terrestrial ecology, systematics, physiology, neurobiology and developmental biology. Students also may develop an interdisciplinary focus to their degree programs, for example, within areas such as bioinformatics, cancer biology, forensic science and environmental science.

Curriculum requirements

Courses	Credit hours
Required courses	11-16
BIOL 693 Current Topics in Biology	2-4
BIOL 698 Thesis	6-9
BIOS/STAT 543 Statistical Methods I (Students should take STAT 543 as early as possible. Students entering the program with a statistics background equivalent to STAT 543 may petition to have this requirement waived.)	3
Recommended electives	14-19
Choose courses from the following list of recommended electives in consultation with adviser.	
BIOL/BNFO 601 Integrated Bioinformatics	3
BIOL 606 Quantitative Ecology	3
BIOL 610 Conservation Applications	3
BIOL 618 Ecosystems Ecology	3
BIOL 626 Physiological Ecology	4
BIOL 630 Patterns of Mammalian Reproduction	3
BIOL 640 Evolution and Molecular Markers	3
BIOL 650 Conservation Genetics	3
BIOL/ENVS/URSP 654 Environmental Remote Sensing	3
BIOL 660 Developmental Biology	3
BIOL 676 Plant and Animal Cell Biology	3
BIOL 690 Biology Seminar	1
BIOL 691 Special Topics in Biology	1-4
BIOL 692 Independent Study	1-4
Any 500-level course in BIOS or STAT (six credit hour maximum includes BIOS 543/STAT 543)	6 (maximum)
Any 500- or 600-level course in BIOL, BIOC, BNFO, CLSE, EGRB, ENVS, HGEN, LFSC, MICR, NEUS, PCEU, PHTX or PHIS	6 (maximum)
Any 600-level course in EDUS, GRAD, PSYC or URSP	6 (maximum)

Note: At least 19 credit hours must be courses designated exclusively for graduate students.

Total graduate credit hours required (minimum)

30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Details on the M.S. degree in biology can be found in the Guidelines for Graduate Studies in Biology at biology.vcu.edu/sites/default/files/pdfs/MS_Guidelines.pdf.

Integrative Life Sciences, Doctor of Philosophy (Ph.D.)

Graduate program director

William B. Eggleston Jr., Ph.D. weggles@vcu.edu

(804) 828-0799

(804) 827-1865

Additional contact

Regina Jefferson Executive administrative assistant lrjeffer@vcu.edu

Program website: vcu.edu/lifesci/phd

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Environmental Studies, Master of (M.Envs.)

Environmental Studies, Master of (M.Envs.), accelerated Bachelor of Science in

Environmental Studies (B.S.) to master's

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Environmental Studies, Master of Science (M.S.)			
Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE
	Fall (preferred)	Jan 10	
	•		International students require TOEFL
Special requir All application	ements: components must be recei	ved by Jan. 10 to be cor	npetitive.

In addition to the general admission requirements of the VCU Graduate School, the Ph.D. in Integrative Life Sciences program requires graduation from an accredited college or university or its equivalent with a degree that is preparative for graduate-level study in the life sciences. Applicants should have a minimum GPA of 3.0 on a 4.0 scale, and scores on the Graduate Record Examination should exceed the 50th percentile in each category. For international applicants, satisfactory scores from a standardized test, such as the TOEFL (above 100), must be submitted along with external evaluation of undergraduate transcripts from nondomestic educational institutions (see Graduate Admissions website for further details).

Letters of recommendation from three present or former professors, advisers or mentors qualified to evaluate the applicant's ability to engage in graduate study in the life sciences are required, as is a written statement describing the applicant's research interests, motivation, research experience, education and goals for pursuing graduate study in this particular program, and preferred research adviser(s), official transcripts from all past postsecondary educational institutions, official GRE scores, and current curriculum vita or resume. Applicants are **strongly** encouraged to contact potential research advisers prior to submitting application materials and to identify potential research advisers in their personal statements.

Students accepted into the program with a 3.4 and higher undergraduate GPA and/ or experience of success in graduate course work will be provided with a stipend and tuition and fees for the first year of matriculation. Following satisfactory progress during the first year and the availability of funds, a second year of funding (stipend, tuition and fees) is available. Preference is given to applicants with preidentified research advisers.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission

The Ph.D. in Integrative Life Sciences is designed for students who want to conduct research that is integrative across multiple disciplines and that takes a systems approach to emerging research questions across the many fields that comprise the life sciences. Students may opt to work with faculty members from departments across VCU campuses. The program provides the opportunity to conduct interdisciplinary research at multiple scales of study from the molecular to ecosystem levels with an emphasis on the concepts of systems biology and biological complexity.

Program goals

- Interdisciplinary knowledge and skills: The core curriculum of the ILS
 program will effectively assist students in gaining understanding of modern
 systems biology along with training in the interdisciplinary skills and
 knowledge increasingly required for doing effective research in the life
 sciences. It will also foster progressive development of a mastery of the
 current state of the research in students' areas of interest as they seek to
 identify key focus areas for their integrative research.
- 2. Research skills: The mentored research component of the program, building on the core curriculum and interdisciplinary elective course work, will foster development of an ability to synthesize this learning and identify key focus areas for integrative research. It will support students as they learn how to design, implement and interpret interdisciplinary experimental approaches that will best address their research questions.
- Communication skills: Students in the program will develop skills in both written and oral communication of life science knowledge, experimental design, results and interpretation to a variety of potential audiences.

Student learning outcomes

- Oral communication skills: The candidate will demonstrate the
 achievement of an appropriate level of oral communication skills with respect
 to the content, organization, logical flow, presentation and appropriate use of
 language incorporating the use of visual aids, as measured by rubric.
- Written communication skills: The candidate will demonstrate the
 achievement of an appropriate level of written communication skill with
 respect to grammar, syntax, spelling and use of vocabulary to effectively
 present information including the use of figures, tables and citations, as
 measured by rubric.
- Experimental design: The candidate will demonstrate the achievement of an
 appropriate level of competence in the ability to appraise, modify, and/or
 create and implement experimental protocols and to design and develop
 experiments, as measured by rubric.
- 4. Problem-solving skills: The candidate will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems, as measured by rubric.
- 5. Integrated knowledge: The candidate will demonstrate an appropriate level of knowledge of the life sciences and a more detailed understanding of the disciplines most pertinent to their own interdisciplinary research areas, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications, as measured by rubric.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research. All work toward the degree must be completed within eight years of the first enrollment.

- Credit-hour requirements: Students in the program are required to earn a minimum of 64 graduate-level credit hours. At least one-half of the graduate credit hours presented for graduation must be at the 600 level or higher.
- Grade requirement: Degree applicants must achieve an overall GPA of 3.0
 (B) with a grade of C in no more than two courses. The GPA for graduation is based on all graduate courses attempted after acceptance into the program.
- 3. Transfer credit: Graduate-level VCU course work taken as a nondegree-seeking student or in a previous graduate matriculation for which a degree was never awarded may be evaluated to determine whether it can be used to fulfill degree requirements of this program in accordance with the VCU Graduate School transfer policy. A maximum of six credit hours earned at another institution can be accepted for transfer into the program if not previously applied toward another degree. A minimum grade of B is required for credit hours transferred.
- Research adviser and committee: New students entering the program may be initially advised by the program director to assist with initial course selection and to provide advice concerning the program. Students should

select a research adviser prior to matriculation, but no later than the end of the first semester. The research adviser may be chosen from among the many graduate faculty members associated with this program from either VCU campus.

Students are required to form a research advisory committee that is headed by the research adviser and that consists of a minimum of five members of the VCU graduate faculty. Individuals who are not graduate faculty members (i.e., individuals from another institution or industry) must apply to the dean of the Graduate School for temporary affiliate graduate faculty appointment. The significant areas of the student's research focus should be represented by the members of the research advisory committee. At least two members of the committee shall have primary appointments in departments other than that of the research advisor, with one of those members being integrally associated with the student's research to foster the interdisciplinary intent of this degree program. Students should form their committees during the first semester of study and no later than the end of the second semester of study.

- Written and oral examinations: Before admission to degree candidacy for the Ph.D. degree, students must successfully complete a comprehensive written examination and an oral examination. The student's research advisory committee will administer both exams. Students should take the written exam upon completion of all required didactic course work, usually at the end of the second year of study. It will focus on material covered in core and selected elective courses as well as fundamental knowledge relevant to the student's research field. Upon successful completion of the written examination and submission and acceptance of a research proposal, students should take an oral examination that includes a defense of the proposed research project and other subject areas deemed appropriate by the committee. Students may retake the written and oral examinations only once. Written evaluations of the written examination, written thesis proposal and oral thesis proposal defense will be completed by research advisory committee members and provided to the chair of the research advisory committee to discuss with the student and to the program director for program assessment.
- **Dissertation research:** The dissertation research project should represent a significant contribution to the body of knowledge in its field and should be deemed suitable for publication in refereed journals. The emphasis of the research conducted by students in this program should be on interdisciplinary research, incorporating two or more disciplines and with a systems approach. Research projects may take advantage of the many research opportunities across the life sciences on both campuses. Projects may encompass multiple scales of study from molecular to ecosystem levels. Students shall prepare a written dissertation describing the completed research using the format approved by the Graduate School. An oral defense of the dissertation, under the direction of the research advisory committee and open to all faculty members, also is required. Written evaluations of the thesis and the oral defense of the thesis will be completed by research advisory committee members and provided to the chair of the research advisory committee to discuss with the student and to the program director for program assessment. Upon successful completion of all degree requirements, students will graduate with the Ph.D. in Integrative Life Sciences.

Curriculum requirements

A minimum total of 64 graduate credit hours is required and is distributed as follows:

Courses	Credit hours
Core courses (12 credit hours)	
LFSC 510/BIOL 545 Biological Complexity	3
LFSC 630 Integrative Life Sciences Research	2
LFSC 690 Research Seminar in Integrative Life Sciences (1 credit hour; 4 semesters)	4
Scientific integrity	1
OVPR 601 Scientific Integrity	
OVPR 602 Responsible Scientific Conduct	
OVPR 603 Responsible Conduct of Research (does not count toward 3 credit-hour restriction for Preparing Future Faculty courses)	

Technologies course (recommended options; choice depends on student's 2 specialty)

ANAT 615 Techniques in Neuroscience and Cell Biology

BNFO/BIOL 541 Laboratory in Molecular Genetics

BNFO 650 Sequence Analysis in Biological Systems

ENVS 602 Environmental Technology

MICR 607 Techniques in Molecular Biology and Genetics

MICR/BNFO 653 Advanced Molecular Genetics: Bioinformatics

Advanced statistics, advanced mathematics or experimental design course (depending on the student's area of research) (minimum 3 credit hours)

Note: Students are expected to enter the program proficient in statistics at the introductory level, as exemplified by STAT/BIOS 543 Statistical Methods I. Students not at this level, as evidenced by prior course work, will be required to take STAT/BIOS 543 or an equivalent course.

BIOL 606 Quantitative Ecology

BIOS/STAT 523 Nonparametric Statistical Methods

BIOS 524 Biostatistical Computing

BIOS 572 Statistical Analysis of Biomedical Data

BNFO/BIOL 601 Integrated Bioinformatics

ENVS 603 Environmental Research Methods

LFSC 610 Analytical Methods in Biocomplexity Analysis

MATH 591 Topics in Mathematics (mathematical biology)

STAT/BIOS 544 Statistical Methods II

STAT 623 Discrete Multivariate Analysis

STAT 643 Applied Linear Regression

Other courses based on approval of research advisory committee

Elective courses (based on research interest and approved by research advisory committee) (minimum 9 credit hours)

500-level or higher courses in ANAT, ANTH, BIOC, BIOL, BIOS, BNFO, CHEM, CLSE, CMSC, EDUS, EGRB, EPID, FRSC, HGEN, MATH, MEDC, MEDP, MICR, NANO, NEUS, OPER, PATH, PCEU, PHAR, PHIS, PHTX, PSCI, PSYC or STAT

Note: Only 3 credits of Preparing Future Faculty (GRAD) courses will be accepted toward the 9 credit hours of electives (exclusive of OVPR Responsible Conduct of Research)

Directed research (minimum 40 credit hours)

LFSC 697 Directed Research in Integrative Life Sciences

Total number of graduate credit hours required (minimum) 64

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of Chemistry

The Department of Chemistry offers programs leading to the Bachelor of Science, Master of Science and Doctor of Philosophy degrees. For undergraduate students, the Bachelor of Science offers concentrations in chemical science, professional chemist, professional chemist with honors, biochemistry and chemical modeling.

For graduate students, the Master of Science and Doctor of Philosophy programs provide opportunities for concentrated study in analytical, inorganic, organic or physical chemistry, or chemical physics. A plan of study is worked out for each student to ensure a sound basis for research. In keeping with the university's commitment as an urban institution, the department also offers part-time programs leading to these degrees.

Refer to the department's website for more information: www.has.vcu.edu/che.

Administration

Scott Gronert

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Professor and Department Chair

Sally S. Hunnicutt

Associate Professor and Assistant Department Chair

www.has.vcu.edu/che

Admission requirements for graduate study

In addition to the general requirements for admission to graduate programs in the Graduate School and the College of Humanities and Sciences, students are expected to have a bachelor's degree from an accredited college or university with 30 semester credits in chemistry. Admission on a provisional basis is possible for a student temporarily lacking this expected chemistry background. Acceptance is based upon undergraduate performance, satisfactory scores on the GRE and letters of recommendation.

Graduate students in the Department of Chemistry may receive financial support via teaching or research assistantships or fellowships. Application forms and instructions for applying to all graduate programs are available on the Graduate School website at www.graduate.vcu.edu.

General degree requirements for graduate programs

Entering graduate students are required to take proficiency examinations in analytical, inorganic, organic and physical chemistry. These examinations are at the level of sound undergraduate courses and are offered preceding the start of the school's fall and spring semesters. These tests are used to evaluate the student's strengths and weaknesses, and the student's program is planned accordingly.

Chemistry courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

A minimum grade of C is required in each prerequisite course: CHEM 100 (if required through placement qualifiers), CHEM 101, CHEM 102, CHEM 301, CHEM 302 and CHEM 309.

In chemistry laboratories each student is charged for breakage incurred. Approved safety glasses are required. Failure to check out of laboratory, upon withdrawal or for other reasons, will incur a charge, billed from the Student Accounting Department.

Follow these links to chemistry (CHEM) courses or the (CHEZ) laboratories.

Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in biochemistry

Graduate program director

Nicholas Farrell, Ph.D.

Professor and graduate director, chemical biology program, Department of Chemistry

npfarrell@vcu.edu

(804) 828-6320

Additional contact

Maryanne M. Collinson, Ph.D.

Professor and chair of graduate recruiting and admissions committee, Department of Chemistry

mmcollinson@vcu.edu

(804) 828-7509

Program website: chembio.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in biology Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in biology of cancer

Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in bioorganic chemistry

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in biochemistry			
Degree:	Semester(s)	Deadline	Test
Ph.D.	of entry:	dates:	requirements:
	Fall	Mar 15	GRE
	Spring	Nov 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission.

- 1. Students must present a satisfactory GPA score of a minimum of 3.0 on a 4.0 scale; satisfactory GRE scores (must be less than five years old); a written statement of the candidate's goals; and three letters of recommendation.
- Students are required to have a bachelor's degree from an accredited college
 or university with 30 semester credit hours in chemistry or biology. These
 credit hours should consist of at least two semesters of organic chemistry and
 a biology course in cell biology, molecular biology or genetics. A physical
 chemistry course is desirable.
- If applicants have outstanding potential but lack specific requirements, they
 may be accepted as provisional. Provisionally accepted students must
 complete all conditions within one year of enrollment.

Graduate students in the program may receive financial support via teaching or research assistantships or fellowships available from the "home" department. No part-time students are accepted at this time.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

Chemical biology presents a framework for the modern approach to studying the complexities of biological processes. It is already a leading focal point for research in the 21st century, integrating concepts and information from the molecular to the cellular level. This interdisciplinary degree program has participants from the departments of Chemistry, Biology, Biochemistry and Molecular Biology, Medicinal Chemistry and Pharmacology within the College of Humanities and Sciences and the schools of Medicine and Pharmacy.

Student learning outcomes

- 1. Demonstrate expertise (breadth and depth) in chemical biology
- 2. Demonstrate appropriate ability to design and conduct experimental research
- Demonstrate ability to analyze data critically and to design experiments independently
- 4. Develop competency in the responsible conduct of research
- 5. Develop effective oral and written communication skills

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students in the Ph.D. in Chemical Biology
 program are required to earn a minimum of 72 graduate-level credit hours
 beyond the baccalaureate. At least one-half of the credit hours presented for
 graduation must be at the 600 level or higher.
- Other requirements: Upon completion of their course work, students will complete their dissertation requirements, which will typically consist of a written and oral dissertation proposal, research and literature seminars, and both a written and oral dissertation defense.

Curriculum requirements

Courses [1]	Credit hours
CHEB 601 Chemical Biology I	3
CHEB 602 Chemical Biology II	3
CHEB 690 Research Seminars in Chemical Biology or CHEM 690 Research Seminar in Chemistry [2]	variable
CHEB 697 Chemical Biology Research Rotations [3]	variable
CHEM 693 Chemistry Perspectives and Ethics [4]	1
CHEM 697 Directed Research [5]	variable
Choose courses from list of recommended electives below in consultation with adviser. [6]	11

[1] At least 18 credit hours of didactic course work must be completed.

Total graduate credit hours required (minimum)

- [2] Students are expected to participate in their home department's seminar
- [3] Students are expected to enroll in CHEB 697 or directed research (one credit minimum) every spring and fall semester.
- [4] Students are expected to enroll in CHEM 693 within their first year of matriculation. Other courses may be used to satisfy this requirement in research

conduct and ethics in consultation with the graduate program director.
[5] Students may also enroll in BIOC 697 for directed research credit hours.
[6] The list of recommended electives includes some typical courses taken in this concentration, but there is flexibility in designing a program of study in consultation with the adviser and graduate program director.

Recommended electives	Credit hours
BIOC 500- and 600-level courses	3
BIOC/MICR 503-504 Biochemistry, Cell and Molecular Biology	3-3
BIOC 602 Physical Properties of Macromolecules	3
BIOC 605 Molecular Biology	3
CHEM 500- and 600-level courses	3
CHEM 504 Advanced Organic Chemistry I	3
CHEM 506 Introduction to Spectroscopic Methods in Organic	3
Chemistry	
CHEM 604 Advanced Organic Chemistry II	3
CHEM 606 Advanced Spectroscopic Methods in Organic	3
Chemistry	
CHEM 633 Mass Spectrometry	1.5/module
MEDC 500- and 600-level courses	3
MEDC 541 Survey of Molecular Modeling Methods	3
MEDC 670 Advanced Molecular Modeling Theory and Practice	3
PHTX 500- and 600-level courses	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in biology

Graduate program director

Nicholas Farrell, Ph.D.

Professor and graduate director, chemical biology program, Department of Chemistry

npfarrell@vcu.edu

(804) 828-6320

Additional contact

Maryanne M. Collinson, Ph.D.

Professor and chair of graduate recruiting and admissions committee, Department

of Chemistry mmcollinson@vcu.edu (804) 828-7509

Program website: chembio.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in biochemistry

Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in biology of cancer

Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in bioorganic chemistry

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in biology			
Degree:	Semester(s)	Deadline	Test
Ph.D.	of entry:	dates:	requirements:
	Fall	Mar 15	GRE
	Spring	Nov 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission

- Students must present a satisfactory GPA score of a minimum of 3.0 on a 4.0 scale; satisfactory GRE scores (must be less than five years old); a written statement of the candidate's goals; and three letters of recommendation.
- Students are required to have a bachelor's degree from an accredited college
 or university with 30 semester credit hours in chemistry or biology. These
 credit hours should consist of at least two semesters of organic chemistry and
 a biology course in cell biology, molecular biology or genetics. A physical
 chemistry course is desirable.
- If applicants have outstanding potential but lack specific requirements, they
 may be accepted as provisional. Provisionally accepted students must
 complete all conditions within one year of enrollment.

Graduate students in the program may receive financial support via teaching or research assistantships or fellowships available from the "home" department. No part-time students are accepted at this time.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

Chemical biology presents a framework for the modern approach to studying the complexities of biological processes. It is already a leading focal point for research in the 21st century, integrating concepts and information from the molecular to the

cellular level. This interdisciplinary degree program has participants from the departments of Chemistry, Biology, Biochemistry and Molecular Biology, Medicinal Chemistry and Pharmacology within the College of Humanities and Sciences and the schools of Medicine and Pharmacy.

Student learning outcomes

- 1. Demonstrate expertise (breadth and depth) in chemical biology
- 2. Demonstrate appropriate ability to design and conduct experimental research
- Demonstrate ability to analyze data critically and to design experiments independently
- 4. Develop competency in the responsible conduct of research
- 5. Develop effective oral and written communication skills

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students in the Ph.D. in Chemical Biology program are required to earn a minimum of 72 graduate-level credit hours beyond the baccalaureate. At least one-half of the credit hours presented for graduation must be at the 600 level or higher.
- Other requirements: Upon completion of their course work, students will complete their dissertation requirements, which will typically consist of a written and oral dissertation proposal, research and literature seminars, and both a written and oral dissertation defense.

Curriculum requirements

Courses [1]	Credit hours
CHEB 601 Chemical Biology I	3
CHEB 602 Chemical Biology II	3
CHEB 690 Research Seminars in Chemical Biology or CHEM 690 Research Seminar in Chemistry [2]	variable
CHEB 697 Chemical Biology Research Rotations [3]	variable
CHEM 693 Chemistry Perspectives and Ethics [4]	1
CHEM 697 Directed Research [5]	variable
Choose courses from list of recommended electives below in consultation with adviser. [6]	11

Total graduate credit hours required (minimum)

- [1] At least 18 credit hours of didactic course work must be completed.
- [2] Students are expected to participate in their home department's seminar program.
- [3] Students are expected to enroll in CHEB 697 or directed research (one credit minimum) every spring and fall semester.
- [4] Students are expected to enroll in CHEM 693 within their first year of matriculation. Other courses may be used to satisfy this requirement in research conduct and ethics in consultation with the graduate program director.
- [5] Students may also enroll in BIOL 697 or PHIS 697 for directed research credit hours
- [6] The list of recommended electives includes some typical courses taken in this concentration, but there is flexibility in designing a program of study in consultation with the adviser and graduate program director.

Recommended electives	Credit hours
BIOC 500- and 600-level courses	3
BIOC 605 Molecular Biology	3
BIOL 500- and 600-level courses	3
BIOL 545/LFSC 510 Biological Complexity	2
BIOL 548/LFSC 520 Bioinformatic Technologies	2
BIOL 565 Advances in Cell Signaling	3
BIOL 676 Plant and Animal Cell Biology	3
CHEM 500- and 600-level courses	3
CHEM 504 Advanced Organic Chemistry I	3

CHEM 506 Introduction to Spectroscopic Methods in Organic	1.5
Chemistry	
CHEM 604 Advanced Organic Chemistry II	3
CHEM 606 Advanced Spectroscopic Methods in Organic	1.5
Chemistry	
LFSC 500- and 600-level courses	3
LFSC 510 Biological Complexity	3
LFSC 520 Bioinformatic Technologies	2
MEDC 500- and 600-level courses	3
PHTX 500- and 600-level courses	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

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Graduation requirements



Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in biology of cancer

Graduate program director

Nicholas Farrell, Ph.D.

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Professor and graduate director, chemical biology program, Department of Chemistry

npfarrell@vcu.edu

(804) 828-6320

Additional contact

Maryanne M. Collinson, Ph.D.

Professor and chair of graduate recruiting and admissions committee, Department of Chemistry

mmcollinson@vcu.edu

(804) 828-7509

Program website: chembio.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in biochemistry

Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in biology Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in bioorganic chemistry

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Chemical Biol cancer	ogy, Doctor of Philosoph	hy (Ph.D.) with a con	ncentration in biology of
Degree:	Semester(s)	Deadline	Test
Ph.D.	of entry:	dates:	requirements:
	Fall	Mar 15	GRE
	Spring	Nov 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission

- Students must present a satisfactory GPA score of a minimum of 3.0 on a 4.0 scale; satisfactory GRE scores (must be less than five years old); a written statement of the candidate's goals; and three letters of recommendation.
- Students are required to have a bachelor's degree from an accredited college
 or university with 30 semester credit hours in chemistry or biology. These
 credit hours should consist of at least two semesters of organic chemistry and
 a biology course in cell biology, molecular biology or genetics. A physical
 chemistry course is desirable.
- If applicants have outstanding potential but lack specific requirements, they
 may be accepted as provisional. Provisionally accepted students must
 complete all conditions within one year of enrollment.

Graduate students in the program may receive financial support via teaching or research assistantships or fellowships available from the "home" department. No part-time students are accepted at this time.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

Chemical biology presents a framework for the modern approach to studying the complexities of biological processes. It is already a leading focal point for research in the 21st century, integrating concepts and information from the molecular to the cellular level. This interdisciplinary degree program has participants from the departments of Chemistry, Biology, Biochemistry and Molecular Biology, Medicinal Chemistry and Pharmacology within the College of Humanities and Sciences and the schools of Medicine and Pharmacy.

Student learning outcomes

- 1. Demonstrate expertise (breadth and depth) in chemical biology
- 2. Demonstrate appropriate ability to design and conduct experimental research
- Demonstrate ability to analyze data critically and to design experiments independently
- 4. Develop competency in the responsible conduct of research

5. Develop effective oral and written communication skills

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students in the Ph.D. in Chemical Biology program are required to earn a minimum of 72 graduate-level credit hours beyond the baccalaureate. At least one-half of the credit hours presented for graduation must be at the 600 level or higher.
- Other requirements: Upon completion of their course work, students will complete their dissertation requirements, which will typically consist of a written and oral dissertation proposal, research and literature seminars, and both a written and oral dissertation defense.

Curriculum requirements

Courses [1]	Credit hours
CHEB 601 Chemical Biology I	3
CHEB 602 Chemical Biology II	3
CHEB 690 Research Seminars in Chemical Biology or CHEM 690 Research Seminar in Chemistry [2]	variable
CHEB 697 Chemical Biology Research Rotations [3]	variable
CHEM 693 Chemistry Perspectives and Ethics [4]	1
CHEM 697 Directed Research [5]	variable
Choose courses from list of recommended electives below in consultation with adviser. [6]	11

Total graduate credit hours required (minimum)

- [1] At least 18 credit hours of didactic course work must be completed.
- [2] Students are expected to participate in their home department's seminar program.
- [3] Students are expected to enroll in CHEB 697 or directed research (one credit minimum) every spring and fall semester.

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- [4] Students are expected to enroll in CHEM 693 within their first year of matriculation. Other courses may be used to satisfy this requirement in research conduct and ethics in consultation with the graduate program director.
- [5] Students may also enroll in PHTX 697 for directed research credit hours.
- [6] The list of recommended electives includes some typical courses taken in this concentration, but there is flexibility in designing a program of study in consultation with the adviser and graduate program director.

Recommended electives	Credit hours
BIOC 606 Biochemical Control Processes	3
BIOC 500- and 600-level courses	3
BIOL 500- and 600-level courses	3
CHEM 500- and 600-level courses	3
CHEM 504 Advanced Organic Chemistry I	3
CHEM 506 Introduction to Spectroscopic Methods in Organic	3
Chemistry	
CHEM 604 Advanced Organic Chemistry II	3
CHEM 606 Advanced Spectroscopic Methods in Organic	3
Chemistry	
MEDC 500- and 600-level courses	3
MEDC 541 Survey of Molecular Modeling Methods	3
MEDC 670 Advanced Molecular Modeling Theory and Practice	3
PHTX 500- and 600-level courses	3
PHTX 536 Principles of Pharmacology and Toxicology	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's

academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

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Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in bioorganic chemistry

Graduate program director

Nicholas Farrell, Ph.D.

Professor and graduate director, chemical biology program, Department of Chemistry

npfarrell@vcu.edu (804) 828-6320

Additional contact

Maryanne M. Collinson, Ph.D.

Professor and chair of graduate recruiting and admissions committee, Department of Chemistry

mmcollinson@vcu.edu

(804) 828-7509

Program website: chembio.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in biochemistry

Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in biology Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in biology of cancer

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Chemical Biology, Doctor of Philosophy (Ph.D.) with a concentration in bioorganic chemistry			
Degree:	Semester(s)	Deadline	Test
Ph.D.	of entry:	dates:	requirements:
	Fall	Mar 15	GRE
	Spring	Nov 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission.

- Students must present a satisfactory GPA score of a minimum of 3.0 on a 4.0 scale; satisfactory GRE scores (must be less than five years old); a written statement of the candidate's goals; and three letters of recommendation.
- Students are required to have a bachelor's degree from an accredited college or university with 30 semester credit hours in chemistry or biology. These

- credit hours should consist of at least two semesters of organic chemistry and a biology course in cell biology, molecular biology or genetics. A physical chemistry course is desirable.
- If applicants have outstanding potential but lack specific requirements, they
 may be accepted as provisional. Provisionally accepted students must
 complete all conditions within one year of enrollment.

Graduate students in the program may receive financial support via teaching or research assistantships or fellowships available from the "home" department. No part-time students are accepted at this time.

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 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

Chemical biology presents a framework for the modern approach to studying the complexities of biological processes. It is already a leading focal point for research in the 21st century, integrating concepts and information from the molecular to the cellular level. This interdisciplinary degree program has participants from the departments of Chemistry, Biology, Biochemistry and Molecular Biology, Medicinal Chemistry and Pharmacology within the College of Humanities and Sciences and the schools of Medicine and Pharmacy.

Student learning outcomes

- 1. Demonstrate expertise (breadth and depth) in chemical biology
- 2. Demonstrate appropriate ability to design and conduct experimental research
- 3. Demonstrate ability to analyze data critically and to design experiments independently
- 4. Develop competency in the responsible conduct of research
- 5. Develop effective oral and written communication skills

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- 1. Credit hour requirements: Students in the Ph.D. in Chemical Biology program are required to earn a minimum of 72 graduate-level credit hours beyond the baccalaureate. At least one-half of the credit hours presented for graduation must be at the 600 level or higher.
- Other requirements: Upon completion of their course work, students will complete their dissertation requirements, which will typically consist of a written and oral dissertation proposal, research and literature seminars, and both a written and oral dissertation defense.

Curriculum requirements

Courses [1] Credit hours

CHEB 601 Chemical Biology I	3
CHEB 602 Chemical Biology II	3
CHEB 690 Research Seminars in Chemical Biology or CHEM	variable
690 Research Seminar in Chemistry [2]	
CHEB 697 Chemical Biology Research Rotations [3]	variable
CHEM 693 Chemistry Perspectives and Ethics [4]	1
CHEM 697 Directed Research [5]	variable
Choose courses from list of recommended electives below in	11
consultation with adviser. [6]	

Total graduate credit hours required (minimum)

- [1] At least 18 credit hours of didactic course work must be completed.
- [2] Students are expected to participate in their home department's seminar program.
- [3] Students are expected to enroll in CHEB 697 or directed research (one credit minimum) every spring and fall semester.
- [4] Students are expected to enroll in CHEM 693 within their first year of matriculation. Other courses may be used to satisfy this requirement in research conduct and ethics in consultation with the graduate program director.
- [5] Students may also enroll in BIOC 697 for directed research credit hours.
- [6] The list of recommended electives includes some typical courses taken in this concentration, but there is flexibility in designing a program of study in consultation with the adviser and graduate program director.

Recommended electives	Credit hours
BIOC 500- and 600-level courses	3
BIOC/MICR 503-504 Biochemistry, Cell and Molecular Biology	3-3
BIOC 602 Physical Properties of Macromolecules	3
BIOC 605 Molecular Biology	3
CHEM 500- and 600-level courses	3
CHEM 504 Advanced Organic Chemistry I	3
CHEM 506 Introduction to Spectroscopic Methods in Organic	3
Chemistry	
CHEM 604 Advanced Organic Chemistry II	3
CHEM 606 Advanced Spectroscopic Methods in Organic	1.5
Chemistry	
CHEM 633 Mass Spectrometry	1.5/module
MEDC 500- and 600-level courses	3
MEDC 541 Survey of Molecular Modeling Methods	1
MEDC 670 Advanced Molecular Modeling Theory and Practice	3
PHTX 500- and 600-level courses	3

Degree candidacy requirements

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Chemistry, Doctor of Philosophy (Ph.D.)

Graduate program director

Sarah C. Rutan, Ph.D.

Professor and graduate coordinator, Department of Chemistry srutan@vcu.edu

(804) 828-7517

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Additional contact

Maryanne M. Collinson, Ph.D.

Professor and chair of graduate recruiting and admissions committee, Department of Chemistry

mmcollinson@vcu.edu

(804) 828-7509

Program website: chemistry.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Chemistry, Doctor of Philosophy (Ph.D.) with a concentration in chemical physics **Apply online at** graduate.admissions.vcu.edu.

Admission requirements

Chemistry, Doctor of Philosophy (Ph.D.)			
Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE-General
	Fall	Mar 15	
	Spring	Nov 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Have a bachelor's degree from an accredited college or university with 30 credit hours in chemistry.
- Admission on a provisional basis is possible for a student temporarily lacking this expected chemistry background.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The Department of Chemistry is committed to the dual mission of teaching and research at the bachelor's, master's and doctoral level. In teaching, the purpose is to provide high quality education in chemistry to students in preparation for professional careers at all levels. In research, the goals are to advance the science of chemistry, to keep faculty on the forefront of the field and to maintain an educational program consistent with the latest technology and development of the discipline. Service to the chemical profession is also an important aspect of the department's activities.

Student learning outcomes

- 1. Demonstrate expertise (breadth and depth) in chemistry
- 2. Demonstrate appropriate ability to design and conduct experimental research
- Demonstrate ability to analyze data critically and to design experiments independently
- 4. Develop competency in the responsible conduct of research
- 5. Develop effective oral and written communication skills

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students in the Ph.D. in Chemistry program are required to earn a minimum of 60 graduate-level credit hours beyond the baccalaureate. At least one-half of the credit hours presented for graduation must be at the 600 level or higher.
- 2. Proficiency exams: Students must demonstrate competency in analytical, inorganic, organic and physical chemistry by satisfactory performance on the proficiency exams or with a minimum grade of B in the appropriate course. These examinations are at the level of sound undergraduate courses and are offered preceding the start of the school's fall and spring semesters. These tests are used to evaluate the student's strengths and weaknesses, and the student's program is planned accordingly.
- 3. Doctoral candidacy: The student is required to complete written and oral examinations in his/her major field to become a doctoral candidate. The written examinations consist of a series of cumulative exams based on the chemistry literature. The oral examination includes the presentation and defense of the proposed dissertation research.
- 4. Dissertation: Students must conduct a substantial original investigation under the supervision of their adviser. Students who wish to include a chemical education component in their research will choose two advisers, one in the cognate area, and one in the area of chemical education. All formal requirements for the degree are otherwise the same as for any doctoral student. Students must prepare dissertations reporting the results of the research and analyzing its significance in relation to existing scientific knowledge. An oral defense of the dissertation will be held. Full-time students should complete the degree requirements in four to five years.

Curriculum requirements

Courses	Credit hours
Required didactic courses [1] Choose three core courses below from the following four areas: analytical, inorganic, organic and physical. [2]	18 (minimum) 9
CHEM 504 Advanced Organic Chemistry I CHEM 510 Atomic and Molecular Structure or CHEM 511 Chemical Thermodynamics and Kinetics [4]	3 3
CHEM 620 Advanced Inorganic Chemistry I CHEM 63x or ENGR 691 Special Topics in Engineering [3] (courses in analytical area)	3 1.5/module
CHEM 698 Investigations in Current Chemistry Literature (0.5 credit hour taken twice) [5]	1

Choose courses from list of recommended electives in consultation with adviser.	8
Other required courses	42
CHEM 690 Research Seminar in Chemistry [6]	1-8
CHEM 692 Chemistry Seminar Presentation [6]	2
CHEM 693 Chemistry Perspectives and Ethics [7]	1
CHEM 697 Directed Research [8]	30
Total graduate credit hours required (minimum)	60

Recommended electives

BIOC 500-level (except BIOC 505, BIOC 506 and BIOC 507)

BIOC 530-533 Biochemistry, Cell and Molecular Biology Modules

BIOC 602 Physical Properties of Macromolecules

BIOS/STAT 543 Statistical Methods I

BIOS/STAT 544 Statistical Methods II

CHEB 601 Chemical Biology I

CHEB 602 Chemical Biology II

CHEM 500-level

CHEM 600-level

CHEM 610 Applied Quantum Chemistry

CHEM 611 Molecular Spectroscopy

CHEM 612 Modern Statistical Mechanics: Fundamentals and Applications

CHEM 615 Chemical Thermodynamics

CHEM 616 Chemical Kinetics

CHEM 620 Advanced Inorganic Chemistry I

CHEM 621 Advanced Inorganic Chemistry II

CHEM 630 Electroanalytical Chemistry

CHEM 631 Separation Science

CHEM 632 Chemometrics

CHEM 633 Mass Spectrometry

CHEM 634 Surface Science

CHEM 635 Spectrochemical Analysis

CHEM 691 Topics in Chemistry

CHEM 698 Investigations in Current Chemistry [5]

ENGR 570 Effective Technical Writing

ENGR 591 Special Topics in Engineering

ENGR 691 Special Topics in Engineering

MEDC 541 Survey of Molecular Modeling Methods

MEDC 609 Advanced Organic Synthesis: A Target-oriented Approach

MEDC 670 Advanced Molecular Modeling Theory and Practice

NANO 570 Nanoscale Physics

NANO 571 Nanoscale Chemistry

NANO 650 Experimental Techniques in Nanoscience I

NANO 651 Experimental Techniques in Nanoscience II

NANO 660 Theoretical Studies of Nanostructures

NANO 661 Computational Nanoscience

PHYS 550 Techniques in Material Research

PHYS 573 Analytical Methods in Physics

PHYS 576 Electromagnetic Theory

PHYS 580 Quantum Mechanics

PHYS 591 Topics in Physics

PHYS 661 Surface and Materials Physics

PHYS 691 Special Topics

[1] Students must earn a minimum of 18 credit hours in eight didactic graduate courses, not including credit for CHEM 690, 692, 693 or 697.

- [2] One of these courses may be waived upon satisfactory proficiency exam scores. The number of required credit hours for the degree does not change.
- [3] The ENGR 691 topics course must be materials characterization.
- [4] In some cases, students may be required to enroll in both CHEM 510 and CHEM 511 because of proficiency exam scores.
- [5] Students are expected to enroll in CHEM 698 (.05 credit hour) twice during their graduate studies, including the semester preceding their literature seminar presentation (CHEM 692). Note: A maximum of two credit hours of CHEM 698 may be presented toward the didactic course graduation requirements to count as one course.
- [6] Students are expected to participate in the department's seminar program by enrolling in CHEM 690 or CHEM 692 every spring and fall semester. At least two formal talks are to be presented in the seminar program by enrolling twice in CHEM 692 (one credit hour).
- [7] Students are expected to enroll in CHEM 693 within the first year of study.
- [8] Students must enroll in CHEM 697 (one credit hour minimum) every spring and fall semester for a minimum of 30 total credit hours. If the required minimum of 60 credit hours for the degree is not fulfilled after completion of all other course requirements, then additional credit hours of CHEM 697 may satisfy remaining credit hours for the degree.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

The Department of Chemistry graduate handbook is available at chemistry.vcu.edu/graduate-programs/graduate-handbook.

Chemistry, Doctor of Philosophy (Ph.D.) with a concentration in chemical physics

Graduate program director

Sarah C. Rutan, Ph.D.

Professor and graduate coordinator, Department of Chemistry

srutan@vcu.edu

(804) 828-7517

Additional contact

Maryanne M. Collinson, Ph.D.

Professor and chair of graduate recruiting and admissions committee, Department of Chemistry

mmcollinson@vcu.edu

(804) 828-7509

Program website:chemistry.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Chemistry, Doctor of Philosophy (Ph.D.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Chemistry, Doctor of Philosophy (Ph.D.) with a concentration in chemical physics			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall	Mar 15	GRE-General
	Spring	Nov 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Have a bachelor's degree from an accredited college or university with 30 credit hours in chemistry or in physics.
- Admission on a provisional basis is possible for a student temporarily lacking this expected chemistry background or in physics.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Department of Chemistry is committed to the dual mission of teaching and research at the bachelor's, master's and doctoral level. In teaching, the purpose is to provide high quality education in chemistry to students in preparation for professional careers at all levels. In research, the goals are to advance the science of chemistry, to keep faculty on the forefront of the field and to maintain an educational program consistent with the latest technology and development of the discipline. Service to the chemical profession is also an important aspect of the department's activities.

Student learning outcomes

- 1. Demonstrate expertise (breadth and depth) in chemistry
- 2. Demonstrate appropriate ability to design and conduct experimental research

- Demonstrate ability to analyze data critically and to design experiments independently
- 4. Develop competency in the responsible conduct of research
- 5. Develop effective oral and written communication skills

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students in the Ph.D. in Chemistry program are required to earn a minimum of 60 graduate-level credit hours beyond the baccalaureate. At least one-half of the credit hours presented for graduation must be at the 600 level or higher.
- 2. Proficiency exams: Students entering the chemical physics concentration must pass proficiency examinations in two areas of chemistry and two areas of physics (mechanics, electricity and magnetism). Students entering with a bachelor's or master's degree in chemistry who have not taken the courses previously may satisfy the physics requirement with an A or B in PHYS 301 and 302 Classical Mechanics I and II and 376 Electromagnetism. Students entering with a bachelor's or master's degree in physics who have not taken the chemistry courses previously may satisfy the chemistry requirement with an A or B in two of the four courses, CHEM 301-302 Organic Chemistry; the two-course sequence counts as one course only), CHEM 406 Inorganic Chemistry II, CHEM 409 Instrumental Analysis or CHEM 510 Atomic and Molecular Structure.
- 3. Doctoral candidacy: The student is required to complete written and oral examinations in his/her major field to become a doctoral candidate. The written examinations consist of a series of cumulative exams based on the chemistry literature. The oral examination includes the presentation and defense of the proposed dissertation research.
- 4. Dissertation: The student must conduct a substantial original investigation under the supervision of his/her adviser and must prepare a dissertation reporting the results of the research and analyzing its significance in relation to existing scientific knowledge. An oral defense of the dissertation will be held. Full-time students should complete the degree requirements in four to five years.

Curriculum requirements

Courses	Credit hours
Required didactic courses [1]	24
CHEM 510 Atomic and Molecular Structure or PHYS 580 Quantum Mechanics	3
CHEM 511 Chemical Thermodynamics and Kinetics	3
CHEM 612 Modern Statistical Mechanics: Fundamentals and Applications	3
PHYS 576 Electromagnetic Theory	3
PHYS 641 Solid State Physics	3
Choose courses from list of recommended electives below in consultation with adviser. [2]	9
Other required courses	36
CHEM 690 Research Seminar in Chemistry or PHYS 690 Research Seminar [3]	1-8
CHEM 692 Chemistry Seminar Presentation [3]	2
CHEM 693 Chemistry Perspectives and Ethics [4]	1
CHEM 697 Directed Research or PHYS 697 Directed Research [5]	30
Total number of graduate credit hours required (minimum)	60

[1] Students must earn a minimum of 24 credit hours in didactic graduate courses, not including credit for CHEM 690, 692, 693 or 697.

- [2] At least 12 credit hours of the 24 required didactic course credit hours must be CHEM graduate courses. Therefore, depending on the choice of CHEM 510 or PHYS 580 above, at least 3 to 6 credit hours chosen from the list of recommended electives must be CHEM graduate courses, respectively.
- [3] Students are expected to participate in the chemistry and/or physics department seminar program by enrolling in CHEM 690, CHEM 692 or PHYS 690 every spring and fall semester. At least two formal talks are to be presented in the seminar program by enrolling twice in CHEM 692 (one credit hour).
- [4] Students are expected to enroll in CHEM 693 within their first year of enrollment
- [5] Students are expected to enroll in CHEM 697 or PHYS 697 (one credit hour minimum) every spring and fall semester. Up to 15 credit hours of PHYS 697 can be used to satisfy the minimum requirement of 30 credit hours of directed research. If the required 60 credit hours for the degree is not fulfilled after completion of all other course requirements, then additional credit hours of CHEM 697 can satisfy the remaining credit hours for the degree.

Recommended electives

Trecommended creen ves	
CHEM 512 Applied Molecular Modeling	3
CHEM 550 Introduction to Polymer Chemistry CHEM	3
591 Topics in Chemistry	1-6
CHEM 610 Applied Quantum Chemistry	3
CHEM 611 Molecular Spectroscopy	3
CHEM 615 Chemical Thermodynamics	3
CHEM 616 Chemical Kinetics	3
CHEM 620 Advanced Inorganic Chemistry I	3
CHEM 634 Surface Science	1.5/module
CHEM 635 Spectrochemical Analysis	1.5/module
CHEM 691 Topics in Chemistry	3
ENGR 570 Effective Technical Writing	3
MATH 532 Ordinary Differential Equations I	3
MATH 533 Partial Differential Equations I	3
NANO 650 Experimental Techniques in Nanoscience I	1.5
NANO 651 Experimental Techniques in Nanoscience II	1.5
PHYS 550 Techniques in Material Research	3
PHYS 571 Theoretical Mechanics	3
PHYS 573 Analytical Methods in Physics	3
PHYS 591 Topics in Physics	3
PHYS 661 Surface and Materials Physics	3
PHYS 691 Special Topics	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.



Other information

The Department of Chemistry graduate handbook is available at chemistry.vcu.edu/graduate-programs/graduate-handbook.

Chemistry, Master of Science (M.S.)

Graduate program director

Sarah C. Rutan, Ph.D.

Professor and graduate coordinator, Department of Chemistry srutan@vcu.edu

(804) 828-7517

Additional contact

Maryanne M. Collinson, Ph.D.

Professor and chair of graduate recruiting and admissions committee, Department of Chemistry

mmcollinson@vcu.edu (804) 828-7509

Program website: chemistry.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Chemistry, Master of Science (M.S.)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.S.	Fall	Mar 15	GRE-General
	Spring	Nov 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Have a bachelor's degree from an accredited college or university with 30 credit hours in chemistry
- Admission on a provisional basis is possible for a student temporarily lacking this expected chemistry background.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Department of Chemistry is committed to the dual mission of teaching and research at the bachelor's, master's and doctoral level. In teaching, the purpose is to provide high quality education in chemistry to students in preparation for professional careers at all levels. In research, the goals are to advance the science of chemistry, to keep faculty on the forefront of the field and to maintain an educational program consistent with the latest technology and development of the discipline. Service to the chemical profession is also an important aspect of the department's activities.

Student learning outcomes

- 1. Demonstrate expertise (breadth and depth) in chemistry
- 2. Demonstrate appropriate ability to design and conduct experimental research
- Demonstrate ability to analyze data critically and to design experiments independently
- 4. Develop competency in the responsible conduct of research
- 5. Develop effective oral and written communication skills

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students in the M.S. in Chemistry program are required to earn a minimum of 30 graduate-level credit hours beyond the baccalaureate. At least one-half of the credit hours presented for graduation must be at the 600 level or higher.
- 2. Proficiency exams: Students must demonstrate competency in analytical, inorganic, organic and physical chemistry by satisfactory performance on the proficiency exams or with a minimum grade of B in the appropriate course. These examinations are at the level of sound undergraduate courses and are offered preceding the start of the school's fall and spring semesters. These tests are used to evaluate the student's strengths and weaknesses, and the student's program is planned accordingly.
- 3. Other requirements: Students are to conduct a research study under the guidance of a thesis adviser. After their first year, students are required to present their research at a poster presentation every fall semester. Once students have completed all required course work (with a 3.0 GPA) and the literature seminar, they must submit the application to candidacy form to the chemistry graduate director. After candidacy, an acceptable research thesis and a final oral examination on the thesis are required. Full-time students should complete these degree requirements in two to three years.

Curriculum requirements

Courses	Credit hours
Required didactic courses [1]	15
Choose three core courses below from the following four areas: analytical, inorganic, organic and physical. [2]	9
CHEM 504 Advanced Organic Chemistry I	3
CHEM 510 Atomic and Molecular Structure or CHEM 511Chemical Thermodynamics and Kinetics [4]	3
CHEM 620 Advanced Inorganic Chemistry I	3
CHEM 63x or ENGR 691 Special Topics in Engineering [3] (courses in analytical area)	1.5/module
CHEM 698 Investigations in Current Chemistry Literature (0.5 credit hour taken twice) [5]	1
Choose courses from list of recommended electives in consultation with adviser.	5
Other required courses	15
CHEM 690 Research Seminar in Chemistry [6]	variable

CHEM 692 Chemistry Seminar Presentation [6] CHEM 693 Chemistry Perspectives and Ethics [7] CHEM 697 Directed Research [8]	2 minimum 1 12
Total graduate credit hours required (minimum)	30
Recommended electives	
BIOC 500-level (except BIOC 505, BIOC 506 and BIOC 507) BIOC 530-533 Biochemistry, Cell and Molecular Biology Modules	3 1-2
BIOC 602 Physical Properties of Macromolecules	1-4
BIOS/STAT 543 Statistical Methods I	3
BIOS/STAT 544 Statistical Methods II	3
CHEB 601 Chemical Biology I	3
CHEM 602 Chemical Biology II	3
CHEM 500-level CHEM 604 Advanced Organic Chemistry II	3
CHEM 605 Physical Organic Chemistry	3
CHEM 606 Advanced Spectroscopic Methods in Organic	1.5
Chemistry	1.5
CHEM 610 Applied Quantum Chemistry	3
CHEM 611 Molecular Spectroscopy	3
CHEM 612 Modern Statistical Mechanics: Fundamentals and	3
Applications	
CHEM 615 Chemical Thermodynamics	3
CHEM 616 Chemical Kinetics CHEM 620 Advanced Inorganic Chemistry I	3
CHEM 621 Advanced Inorganic Chemistry II	3
CHEM 630 Electroanalytical Chemistry	1.5/module
CHEM 631 Separation Science	1.5/module
CHEM 632 Chemometrics	1.5/module
CHEM 633 Mass Spectrometry	1.5/module
CHEM 634 Surface Science	1.5/module
CHEM 635 Spectrochemical Analysis	1.5/module
CHEM 691 Topics in Chemistry	1-6
CHEM 698 Investigations in Current Chemistry Literature [5]	.5
ENGR 570 Effective Technical Writing	
ENGR 591 Special Topics in Engineering	1-4
ENGR 691 Special Topics in Engineering	1-4
MEDC 541 Survey of Molecular Modeling Methods	1
MEDC 670 Advanced Molecular Modeling Theory and Practice NANO 570 Nanoscale Physics	3
NANO 570 Nanoscale Physics NANO 571 Nanoscale Chemistry	3
NANO 650 Experimental Techniques in Nanoscience I	1.5
NANO 651 Experimental Techniques in Nanoscience II	1.5
NANO 660 Theoretical Studies of Nanostructures	3
NANO 661 Computational Nanoscience	3
PHYS 550 Techniques in Material Research	3
PHYS 573 Analytical Methods in Physics	3
PHYS 576 Electromagnetic Theory	3
PHYS 580 Quantum Mechanics	3
PHYS 591 Topics in Physics	1-3
PHYS 661 Surface and Materials Physics	3
PHYS 691 Special Topics	3

- [1] Students must earn a minimum of 15 credit hours in six didactic graduate courses, not including credit hours for CHEM 690, 692, 693 or 697.
- [2] One of these courses may be waived upon satisfactory proficiency exam scores. The required number of credit hours for the degree does not change.

- [3] The ENGR 691 topics course must be materials characterization.
- [4] In some cases, students may be required to enroll in both CHEM 510 and CHEM 511 because of proficiency exam scores.
- [5] Students are expected to enroll in CHEM 698 (0.5 credit hour) twice during their graduate studies, including the semester preceding their literature seminar presentation (CHEM 692). Note: A maximum of two credit hours of CHEM 698 may be presented toward the didactic course graduation requirements to count as one course.
- [6] Students are expected to participate in the department's seminar program by enrolling in CHEM 690 or CHEM 692 every spring and fall semester. At least two formal talks are to be presented in the seminar program by enrolling twice in CHEM 692 (one credit hour).
- [7] Students are expected to enroll in CHEM 693 within their first year of enrollment.
- [8] Students are expected to enroll in CHEM 697 (one credit hour minimum) every spring and fall semester.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

The Department of Chemistry graduate handbook is available at chemistry.vcu.edu/graduate-programs/graduate-handbook.

Chemistry, Master of Science (M.S.) with Fudan University [dual degree]

Graduate program director

Sarah C. Rutan, Ph.D.

Professor and graduate coordinator, Department of Chemistry srutan@vcu.edu

(804) 828-7517

Additional contacts

Maryanne M. Collinson, Ph.D.

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(804) 828-7509

Nicholas Farrell, Ph.D.

Coordinator, Fudan dual-degree program, Department of Chemistry npfarrell@vcu.edu

(804) 828-6320

Program website: chemistry.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Chemistry, Doctor of Philosophy (Ph.D.)

Chemistry, Doctor of Philosophy (Ph.D.) with a concentration in chemical physics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Chemistry, Master of Science (M.S.) with Fudan University [dual degree]				
Degree:	Semester(s) of	Deadline dates:	Test requirements:	
M.S.	entry:		GRE-General	
	Fall	Apr 15	TOEFL	
		•	(International	
	Spring	Oct 15	students only)	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission

- Applicants must have a bachelor's degree from an accredited college or university with 30 credit hours in chemistry. (Admission on a provisional basis is possible for a student temporarily lacking this expected chemistry background.)
- Graduate students in the Department of Chemistry may receive financial support via teaching or research assistantships or fellowships. Application forms and instructions for applying to all graduate programs are available on the Graduate School website at graduate.vcu.edu.
- Fudan University students participating in this dual degree program will be full-time students in good standing in Fudan University's Department of Chemistry.
- 4. Fudan University students will be required to (a) successfully pass an interview at Fudan University conducted by an identified faculty member of VCU's Chemistry Department and (b) successfully pass an English proficiency exam before the application to VCU will be processed.
- Fudan University students' program will be required to submit formal applications to the VCU International Admissions Office. The VCU Department of Chemistry is responsible for admitting these students to VCU.
- Fudan University students will be required to submit to VCU their Fudan transcripts and grade-related information before their applications to VCU will be processed.
- Fudan University students are classified as full-time, out-of-state graduate students and will assume all tuition, fees, housing and cost-of-living expenses while at VCU.
- 8. Students must receive a positive evaluation from both the Fudan and VCU chemistry departments to receive admission into the program. As part of the admission process, a member of VCU's Department of Chemistry will interview applicants in Shanghai prior to admission into the program.
- Fudan University students are required to maintain the equivalent of a VCU B average including their first year at Fudan University.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The VCU Department of Chemistry is committed to the dual mission of teaching and research at the bachelor's, master's and doctoral level. In teaching, the purpose is to provide high quality education in chemistry to students in preparation for professional careers at all levels. In research, the goals are to advance the science of chemistry, to keep faculty on the forefront of the field and to maintain an educational program consistent with the latest technology and development of the discipline. Service to the chemical profession is also an important aspect of the department's activities.

Student learning outcomes

Graduates of the program must:

- 1. Demonstrate expertise (breadth and depth) in chemistry
- 2. Demonstrate appropriate ability to design and conduct experimental research
- Demonstrate ability to analyze data critically and to design experiments independently
- 4. Develop competency in the responsible conduct of research
- 5. Develop effective oral and written communication skills

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students in the M.S. in Chemistry program are
 required to earn a minimum of 30 graduate-level credit hours beyond the
 baccalaureate. At least one-half of the credit hours presented for graduation
 must be at the 600 level or higher.
- 2. Proficiency exams: Students must demonstrate competency in analytical, inorganic, organic and physical chemistry by satisfactory performance on the proficiency exams or with a minimum grade of B in the appropriate course. These examinations are at the level of sound undergraduate courses and are offered preceding the start of the school's fall and spring semesters. These tests are used to evaluate the student's strengths and weaknesses, and the student's program is planned accordingly.
- 3. Other requirements: Students are to conduct a research study under the guidance of a thesis adviser. After their first year, students are required to present their research at a poster presentation every fall semester. Once students have completed all required course work (with a 3.0 GPA) and the literature seminar, they must submit the application to candidacy form to the chemistry graduate director. After candidacy, an acceptable research thesis and a final oral examination on the thesis are required. Full-time students should complete these degree requirements in two to three years.

Program schedule

In the first year (two semesters) at Fudan University, the Fudan student will
successfully complete core courses required of all graduate students in the
VCU M.S. in Chemistry program. The Department of Chemistry at VCU
requires an M.S. student to earn a minimum of 15 credit hours in six graduate
courses. A further minimum of 20 credit hours must be earned in seminar,
seminar discussion, a mandatory course on chemistry perspectives and ethics
and directed research courses. A departmental committee, composed of the
VCU graduate program director, the VCU graduate admissions director and

- the Fudan program director, will determine the transferability and correspondence of Fudan courses to VCU courses and credit hours before the student enters VCU. This committee will advise the individual student on course work and credits eligible for transfer to meet the 15-credit didactic course requirement and what, if any, further course work should be taken.
- 2. In the second year (two semesters) at VCU, the student will immediately begin laboratory research (CHEM 697). The student will also identify a thesis adviser no later than the beginning of enrollment at VCU (third semester of program). A co-adviser from Fudan University will also be appointed at this time. The student will enroll in didactic courses offered by the Department of Chemistry at the discretion of the VCU adviser. It is envisaged that the core courses will have been taken at Fudan and that specialized and topics courses will be taken at VCU. The Department of Chemistry will not create new courses for Fudan students.
- 3. In the third year, the Fudan student will remain at VCU to complete the fifth semester of the program. The student will continue to select from the department's regular course offerings and will continue to work on the thesis with the VCU thesis adviser. All research data should be obtained by the end of the third semester at VCU.
- 4. In the sixth and final semester, the Fudan student will return to Fudan University to complete the writing of the thesis and will enroll in final elective courses (if necessary) pertinent to the student's area of concentration. The two thesis advisers (one from VCU and one from Fudan) will oversee the completion of the thesis. The formal thesis will be written in Chinese with an English translation.

Curriculum requirements

Curriculum requirements			
Courses	Credit hours		
Fudan University			
Preparatory foundation courses	10		
The following preparatory foundation courses at Fudan are required by do not count toward the 30 graduate credit-hour requirement for the Fudan M.S.	ıt		
Philosophy	2		
Theory and Practice of Socialism	2		
English of Master of Science	4		
Specialty English	2		
Required courses	18		
CHEM 6001 Advanced Inorganic Chemistry	3		
CHEM 6002 Advanced Organic Chemistry	3		
CHEM 6003 Principles of Quantum Chemistry and Its Applications	3		
CHEM 6004 Advanced Analysis for Molecular Science	3		
CHEM 6005 Advanced Polymer Chemistry	3		
CHEM 6006 Polymer and Condensed Matter Physics	3		
Recommended Fudan electives	12		
Choose 12 credit hours from the following list:			
CHEM 6007 Advanced Inorganic Synthesis	2		
CHEM 6008 Inorganic Experiment	3		
CHEM 6009 Inorganic Synthesis	2		
CHEM 6010 Advanced Instrumental Analysis	3		
CHEM 6013 Advanced Organic Synthesis	2		
CHEM 6014 Advanced Experimental Organic Synthesis	3		
CHEM 6015 Chemical Statistical Thermodynamics	2		
CHEM 6016 Advanced Physical Chemistry Experiments	2		
CHEM 7003 Structural Analysis of Organics	1		
CHEM 7004 Synthetic Chemistry in Medicine	2		
CHEM 7005 Organic Chemistry	1		

CHEM 7006 Microporous Material Chemistry	1	
CHEM 7007 Principles of Heterogeneous Catalysis	2	
CHEM 7008 Novel Catalytic Materials	1	
CHEM 7010 Green Chemistry	1	
CHEM 7011 Catalysis: From Laboratory to Industrial Process	1	
CHEM 7017 NMR Principal and Experimental Technology	2	
CHEM 7018 Sol-Gel Chemistry CHEM 8001 Progress in Bio-Inorganic Chemistry	2	
CHEM 8002 Progress in Organometallic Chemistry	2	
CHEM 8003 Progress in Contemporary Inorganic Chemistry	2	
CHEM 8016 Modern Organometallic Chemistry	1	
CHEM 8039 Coordination Chemistry	2	
CHEM 8041 Organometallic Chemistry Applied in Organic Synthesis	1	
CHEM 8055 Progress in Asymmetric Synthesis	1	
CHEM 8056 Chem-Genome Study	2	
CHEM 8081 The Chemistry of Carbon	1	
CHEM 8082 Synthesis and Characterization of Novel Inorganic Materials	1	
Total graduate credit hours required (minimum) at Fudan		30
University		50
Virginia Commonwealth University		
Required didactic courses [1]		15
Choose three core courses below from the following four areas:	9	
analytical, inorganic, organic and physical. [2]		
CHEM 504 Advanced Organic Chemistry I	3	
CHEM 510 Atomic and Molecular Structure or CHEM 511Chemical	3	
Thermodynamics and Kinetics [4]	2	
CHEM 620 Advanced Inorganic Chemistry I CHEM 63x or ENGR 691 Special Topics in Engineering [3] (courses in	3	
analytical area)	mod	
CHEM 698 Investigations in Current Chemistry Literature (0.5 credit	1	
hour taken twice) [5]		
Choose courses from list of recommended VCU electives below in	5	
consultation with adviser.		
Other required courses		15
CHEM 690 Research Seminar in Chemistry [6]	vari	able
CHEM 692 Chemistry Seminar Presentation [6]	2	
		imum
CHEM 693 Chemistry Perspectives and Ethics [7]	1	
CHEM 697 Directed Research [8]	12	
Total graduate credit hours required (minimum) at VCU	;	30
Recommended VCU electives		
BIOC 500-level (except BIOC 505, BIOC 506 and BIOC 507)	3	
BIOC 530-533 Biochemistry, Cell and Molecular Biology Modules	1-2	
BIOC 602 Physical Properties of Macromolecules	1-4	
BIOS/STAT 543 Statistical Methods I	3	
BIOS/STAT 544 Statistical Methods II	3	
CHEB 601 Chemical Biology I CHEB 602 Chemical Biology II	3	
CHEB 602 Chemical Biology II CHEM 500-level	3	
CHEM 604 Advanced Organic Chemistry II	3	
CHEM 605 Physical Organic Chemistry	3	
CHEM 606 Advanced Spectroscopic Methods in Organic Chemistry	1.5	
CHEM 610 Applied Quantum Chemistry	3	

CHEM 611 Molecular Spectroscopy	3
CHEM 612 Modern Statistical Mechanics: Fundamentals and	3
Applications	
CHEM 615 Chemical Thermodynamics	3
CHEM 616 Chemical Kinetics	3
CHEM 620 Advanced Inorganic Chemistry I	3
CHEM 621 Advanced Inorganic Chemistry II	3
CHEM 630 Electroanalytical Chemistry	1.5/
	modul
CHEM 631 Separation Science	1.5/
	modul
CHEM 632 Chemometrics	1.5/
CVEN (22 M) C , , , , 1.5	modul
CHEM 633 Mass Spectrometry 1.5 per	1.5/ modul
CHEM 634 Surface Science	1.5/
CHEW 034 Surface Science	modul
CHEM 635 Spectrochemical Analysis	1.5/
CHEM 055 Spectroenemical ranarysis	modul
CHEM 691 Topics in Chemistry	1-6
CHEM 698 Investigations in Current Chemistry Literature [5]	.5
ENGR 570 Effective Technical Writing	3
ENGR 591 Special Topics in Engineering	1-4
ENGR 691 Special Topics in Engineering	1-4
MEDC 541 Survey of Molecular Modeling Methods	1
MEDC 670 Advanced Molecular Modeling Theory and Practice	3
NANO 570 Nanoscale Physics	3
NANO 571 Nanoscale Chemistry	3
NANO 650 Experimental Techniques in Nanoscience I	1.5
NANO 651 Experimental Techniques in Nanoscience II	1.5
NANO 660 Theoretical Studies of Nanostructures	3
NANO 661 Computational Nanoscience	3
PHYS 550 Techniques in Material Research	3
PHYS 573 Analytical Methods in Physics	3
PHYS 576 Electromagnetic Theory	3
PHYS 580 Quantum Mechanics	3
PHYS 591 Topics in Physics	1-3
PHYS 661 Surface and Materials Physics	3
PHYS 691 Special Topics	3

- [1] Students must earn a minimum of 15 credit hours in six didactic graduate courses, not including credit hours for CHEM 690, 692, 693 or 697.
- [2] One of these courses may be waived upon satisfactory proficiency exam scores. The required number of credit hours for the degree does not change.
- [3] The ENGR 691 topics course must be materials characterization.
- [4] In some cases, students may be required to enroll in both CHEM 510 and CHEM 511 because of proficiency exam scores.
- [5] Students are expected to enroll in CHEM 698 (0.5 credit hour) twice during their graduate studies, including the semester preceding their literature seminar presentation (CHEM 692). Note: A maximum of two credit hours of CHEM 698 may be presented toward the didactic course graduation requirements to count as one course.
- [6] Students are expected to participate in the department's seminar program by enrolling in CHEM 690 or CHEM 692 every spring and fall semester. At least two formal talks are to be presented in the seminar program by enrolling twice in CHEM 692 (one credit hour).
- [7] Students are expected to enroll in CHEM 693 within their first year of enrollment.
- [8] Students are expected to enroll in CHEM 697 (one credit hour minimum) every spring and fall semester.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

The Department of Chemistry graduate handbook is available at chemistry.vcu.edu/graduate-programs/graduate-handbook.

Nanoscience and Nanotechnology, Doctor of Philosophy (Ph.D.)

Graduate program director

Everett E. Carpenter, Ph.D. Professor, Department of Chemistry ecarpenter2@vcu.edu (804) 828-7508

Additional contact

Maryanne M. Collinson, Ph.D. Chair, graduate recruiting and admissions committee mmcollinson@vcu.edu (804) 828-7509

Program website: nano.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Nanoscience a	noscience and Nanotechnology, Doctor of Philosophy (Ph.D.)		
Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE
	Fall Spring	Apr 15 Oct 15	

In addition to the general admission requirements of the VCU Graduate School and the College of Humanities and Sciences, students are expected to have a bachelor's degree from an accredited college or university with 30 credit hours in chemistry, physics or engineering.

Credit

Admission on a provisional basis is possible for a student temporarily lacking the expected background. Acceptance is based upon undergraduate performance, satisfactory scores on the GRE and letters of recommendation.

Graduate students in the nanoscience and nanotechnology Ph.D. program may receive financial support via teaching or research assistantships or fellowships available from the home department.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

- In teaching, the purpose is to provide high quality education in chemistry and/or physics in preparation for professional careers in nanoscience and nanotechnology.
- In research, the goals are to advance nanoscience research, to keep faculty on the forefront of the field and to maintain an educational program consistent with the latest technology and development of the discipline.

Student learning outcomes

- 1. Develop effective oral and written communication skills
- 2. Demonstrate expertise (breadth and depth) in nanoscience
- 3. Demonstrate appropriate ability to design and conduct experimental research
- Demonstrate ability to analyze data critically and to design experiments independently
- 5. Develop competency in the responsible conduct of research

Degree requirements

In addition to the VCU Graduate School graduation requirements, students preparing for the Doctor of Philosophy degree in nanoscience and nanotechnology must earn a minimum of 72 credit hours consisting of core courses (nine credit hours), elective courses (nine credit hours), seminar (eight credit hours) and research (46 credit hours).

Before admission to candidacy for the Ph.D. degree, students must have (a) completed at least 12 credit hours of their required course work, (b) successfully completed cumulative exams and (c) successfully completed an oral candidacy examination based on a research proposal. The student will be required to complete a series of cumulative exams in the area of nanoscience and nanotechnology, which will normally occur during the student's second year in residence. After completion of the cumulative exams, an oral candidacy examination is then required to become a Ph.D. candidate. The oral examination, which is administered by the student's graduate dissertation committee, is based upon a written proposal describing the proposed dissertation research project. It is intended to evaluate the adequacy of the proposed project, the student's level of understanding of the project and the likelihood that the dissertation can be completed successfully.

Students must conduct a substantial original investigation under the supervision of their advisers and must submit to the graduate dissertation committee a written dissertation reporting the results of the research and analyzing its significance in relation to existing scientific knowledge. The oral dissertation defense, conducted under the direction of the dissertation committee, will examine the candidate's research, dissertation documentation and underlying fundamental knowledge encompassed by the candidate's research. Upon successful completion of the defense and the dissertation, the student may apply for graduation with the Ph.D. in Nanoscience and Nanotechnology. Full-time students should complete the degree requirements in four to five years.

Curriculum requirements

Courses	hours
Core courses	9
NANO 570 Nanoscale Physics	3
NANO 571 Nanoscale Chemistry	3
NANO 650 and 651 Experimental Techniques in Nanoscience I and II or NANO 660 Theoretical Studies of Nanostructures	3
Seminar	8
NANO 690 Research Seminar in Nanoscience and Nanotechnology (one credit hour taken six times)	6
NANO 692 Nanoscience Seminar Presentation (one credit hour taken twice)	2
Research	46
CHEM 697 Directed Research or PHYS 697 Directed Research	
Elective courses	9
The nine elective credit hours will be chosen from the following courses or other courses as approved by the program director.	
CHEM 510 Atomic and Molecular Structure	3
CHEM 511 Chemical Thermodynamics and Kinetics	3
CHEM 580 Mechanical Properties of Plastics and Polymers	3
CHEM 591 Topics in Chemistry	1-6
CHEM 610 Applied Quantum Chemistry	3
CHEM 611 Molecular Spectroscopy	3
CHEM 612 Modern Statistical Mechanics: Fundamentals and Applications	3
CHEM 634 Surface Science	1.5
CHEM 635 Spectrochemical Analysis	1.5
CHEM 691 Topics in Chemistry	1-6
CLSE 645 Biosensors and Bioelectronic Devices	3
CLSE 675 Polymers in Medicine	3
EGRB 613 Biomaterials	3
EGRE 525 Fundamentals of Photonics Engineering	3
EGRE 621 Spintronics	3
EGRE 623 Nanostructures and Nanodevices	3
EGRM 609 Advanced Characterization of Materials	3
ENGR 505 Characterization of Materials	3
ENGR 691 Special Topics in Engineering	1-4
PHYS 550 Techniques in Material Research	3
PHYS 580 Quantum Mechanics	3
PHYS 591 Topics in Physics	1-3
PHYS 641 Solid State Physics	3
PHYS 661 Surface and Materials Physics	3
PHYS 691 Special Topics	3
Total graduate credit hours required (minimum)	72

Students will attend NANO 690 Research Seminar in Nanoscience and Nanotechnology throughout their degree programs, receiving an S (satisfactory) or

U (unsatisfactory) grade based on attendance and participation. Students will also give two seminar presentations, one on a literature topic and one on their dissertation research, which will be graded on the A/B/C/D/F scale.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of English

The purpose of the Department of English is to teach students to see their worlds with clarity and respond to them with sensitivity, through reading and writing. Students are invited to read and explore a diversity of texts created in different times and voices and then to respond to these texts variously and critically, situating them within their contexts and discerning their important aesthetic features, rhetorical elements and social functions.

Students in this department also are encouraged to express themselves in expository or imaginative works that engage thought and feeling, evince purpose clearly, marshal appropriate evidence and observe principles of rhetorical decorum.

The Department of English offers a Bachelor of Arts in English, as well as minors in American studies (in conjunction with the Department of History), British studies, English (for non-English majors), writing and creative writing, the Master of Arts in English and the Master of Fine Arts in Creative Writing, and a doctoral program leading to a Ph.D. in Media, Art, and Text. Use the program search navigation to view individual program descriptions and curricula, or visit the department's website at www.english.vcu.edu for additional information.

Administration

Katherine C. Bassard

Professor and Department Chair

David E. Latané

Professor and Associate Department Chair

Katherine Saunders Nash

Associate Professor and Director of Undergraduate Studies

Joshua Eckhardt

Associate Professor and Director of the M.A. Program

Kathleen Graber

Associate Professor and Director of Creative Writing/M.F.A. Program

Eric Garberson

Associate Professor of Art History and Director, MATX Program www.english.vcu.edu

English courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to English (ENGL) courses.

Creative Writing, Master of Fine Arts (M.F.A.) with a concentration in fiction

Graduate program director

Gregory Donovan

Associate professor and director of creative writing, Department of English gdonovan@vcu.edu

(804) 828-1331

Additional contact

Thom Didato

Graduate programs adviser, Department of English

tndidato@vcu.edu

(804) 828-1329

Program website: english.vcu.edu/mfa

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Creative Writing, Master of Fine Arts (M.F.A.) with a concentration in fiction and poetry

Creative Writing, Master of Fine Arts (M.F.A.) with a concentration in poetry

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
M.F.A.	Fall	Feb 1 (Jan 15 for consideration of assistantship)	GRE-General

The Master of Fine Arts in Creative Writing program is designed to attract students from diverse undergraduate backgrounds who are writers of promise. The program is suited particularly to those interested primarily in the writing of fiction and poetry; however, some emphasis also is placed on nonfiction writing, playwriting and screenwriting.

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- A portfolio of promising fiction or poetry, possibly with drama (as a minimum, approximately eight to 10 poems, or 20 or more pages of fiction or some combination of these; in all cases, applicants should submit only their strongest creative writing samples) to be submitted directly to the M.F.A. program
- 2. Three recommendations from persons who are qualified to give information concerning the applicant's probable success in graduate school, especially in a creative writing program
- 3. A scholastic record that is indicative of the applicant's ability to pursue a graduate degree successfully
- 4. A baccalaureate degree or its equivalent from an accredited institution
- 5. Completion of the general Graduate Record Examination (The subject test in literature is not required for M.F.A. applicants.)

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

Our selective and academically rigorous 48-credit-hour, three-year program is designed to provide talented writers with the opportunity to work closely with both outstanding faculty and gifted peers to strengthen their craft, develop their literary aesthetics, enrich their understanding of existing traditions as well as compositional possibilities, and to participate actively in the life of the literary community at large.

The primary areas of study are poetry and fiction, and admission is highly competitive. In addition to the poetry and fiction workshops, there are courses available that focus on writing drama, nonfiction and screenplays, as well as courses that provide practical experience in editing.

Student learning outcomes

Students in the M.F.A. in Creative Writing program will:

- Develop and refine their individual writerly voices, produce literary work of a high quality and demonstrate a comprehensive understanding of their own aesthetics, as well as the literary models and cultural sources of those aesthetics
- 2. Actively engage in a wider literary culture and community at the local, regional, national or international level
- Develop constructive workshop practices and demonstrate the ability to read closely and respond perceptively and critically to the writing of their fellow M.F.A. students
- Develop an advanced comprehension of editing and revision techniques and strategies, which include synthesizing challenges, advice and critiques from professors and fellow M.F.A. students
- 5. Develop, hone and articulate a keen sense of their artistic and career goals

Student learning outcomes specific to fiction

- Demonstrate the use or knowledge of effective approaches for creating sustained works of fiction distinguished by a nuanced use of appropriate narrative elements, techniques and conventions
- Demonstrate a highly developed proficiency in understanding and creating story structures appropriate to their purpose and audience, as well as to their chosen literary modes and styles
- 3. In a statement of purpose or aesthetics that is part of their thesis manuscripts, as well as in an exit interviews/thesis defense, appraise and locate their own work within literary and cultural contexts

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students in the M.F.A. in Creative Writing
 program are required to earn a minimum of 48 graduate-level credit hours
 beyond the baccalaureate. At least half of the credit hours presented for
 graduation must be at the 600 level or higher.
- 2. Other requirements: Beyond the required courses, students should select elective courses, in conjunction with the program director or their thesis advisers, which are appropriate to their aims and interests. The thesis work gives students the opportunity to produce manuscripts of publishable quality. Course work also is available in the techniques of teaching creative writing, and the program is flexible enough to include studies undertaken in other departments of the university as well, including the departments of Art History, Theatre and Philosophy and the Richard T. Robertson School of Media and Culture.

Credit hours

Curriculum requirements

Courses

Courses	Credit hours
Workshops	12
Choose four courses from the following workshops. The	
majority of the course work should be in the student's genre.	
ENGL 666 Creative Writing: Fiction	3
ENGL 667 Creating Writing: Poetry	3
ENGL 668 Creative Writing: Drama	3
ENGL 671 Film and Television Scripts	3
ENGL 672 Writing Nonfiction	3
Elective courses in literature	12
Choose four courses from the following list:	
ENGL/TEDU 528 Children's Literature II	3
ENGL 560 Studies in British Literature and Culture	3
ENGL 570 Special Topics in American Literature and Culture	3
ENGL/ENED 601 Young Adult Literature	3
ENGL 605 Introduction to Scholarship in English Studies	3
ENGL 606 Literary Criticism	3
ENGL 611 Authors	3
ENGL 614 Cultural Discourses	3
ENGL 620 Intertextuality	3
ENGL 624 Texts and Contexts	3
ENGL 627 Genres	3
ENGL 629 Form and Theory of Poetry	3
ENGL 630 Form and Theory of Fiction	3
ENGL 631 Form and Theory of Creative Nonfiction	3
ENGL 692 Independent Study	1-3
Additional recommended electives	18
May include up to three additional credit hours of thesis	
ENGL/TEDU 528 Children's Literature II	3
ENGL/ENED 532 Applied English Linguistics	3
ENGL 550 Studies in Linguistics	3
ENGL/TEDU/LING 552 Teaching English as a Second	3
Language	
ENGL 560 Studies in British Literature and Culture	3
ENGL 570 Special Topics in American Literature and Culture	3
ENGL/ENED 601 Young Adult Literature	3
ENGL 605 Introduction to Scholarship in English Studies	3
ENGL 606 Literary Criticism	3

ENGL 611 Authors	3
ENGL 614 Cultural Discourses	3
ENGL 620 Intertextuality	3
ENGL 624 Texts and Contexts	3
ENGL 627 Genres	3
ENGL 629 Form and Theory of Poetry	3
ENGL 630 Form and Theory of Fiction	3
ENGL 631 Form and Theory of Creative Nonfiction	3
ENGL 632 Community Writing	3
ENGL 636 Teaching Writing	3
ENGL 637 Theories of Rhetoric and Composition	3
ENGL 638 Responding to Writing	3
ENGL 652 Studies in Writing and Rhetoric:	3
ENGL 661 Themes in Interdisciplinary Studies	3
ENGL 666 Creative Writing: Fiction	3
ENGL 667 Creating Writing: Poetry	3
ENGL 668 Creative Writing: Drama	3
ENGL 670 Literary Editing and Publishing	3
ENGL 671 Film and Television Scripts	3
ENGL 672 Writing Nonfiction	3
ENGL 673 Teaching Creative Writing	3
ENGL 692 Independent Study	1-3
ENGL 694 Internship in Writing	3
ENGL 798 Thesis	1-3
Thesis	6
ENGL 798 Thesis	variable
Total graduate credit hours required (minimum)	48

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduation requirements



Other information

M.F.A. Guide may be accessed online at english.vcu.edu/mfa/mfa-guide.

Creative Writing, Master of Fine Arts (M.F.A.) with a concentration in fiction and poetry

Graduate program director

Gregory Donovan

Associate professor and director of creative writing, Department of English gdonovan@vcu.edu (804) 828-1331

Additional contact

Thom Didato

Graduate programs adviser, Department of English tndidato@vcu.edu (804) 828-1329

Program website: english.vcu.edu/mfa

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Creative Writing, Master of Fine Arts (M.F.A.) with a concentration in fiction Creative Writing, Master of Fine Arts (M.F.A.) with a concentration in poetry

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
M.F.A.	Fall	Feb 1 (Jan 15 for consideration of assistantship)	GRE-General

The Master of Fine Arts in Creative Writing program is designed to attract students from diverse undergraduate backgrounds who are writers of promise. The program is suited particularly to those interested primarily in the writing of fiction and poetry; however, some emphasis also is placed on nonfiction writing, playwriting and screenwriting.

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- A portfolio of promising fiction or poetry, possibly with drama (as a minimum, approximately eight to 10 poems, or 20 or more pages of fiction or some combination of these; in all cases, applicants should submit only their strongest creative writing samples) to be submitted directly to the M.F.A. program
- Three recommendations from persons who are qualified to give information concerning the applicant's probable success in graduate school, especially in a creative writing program
- A scholastic record that is indicative of the applicant's ability to pursue a
 graduate degree successfully
- 4. A baccalaureate degree or its equivalent from an accredited institution
- 5. Completion of the general Graduate Record Examination (The subject test in literature is not required for M.F.A. applicants.)

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It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on

Credit hours

program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

Our selective and academically rigorous 48-credit-hour, three-year program is designed to provide talented writers with the opportunity to work closely with both outstanding faculty and gifted peers to strengthen their craft, develop their literary aesthetics, enrich their understanding of existing traditions as well as compositional possibilities, and to participate actively in the life of the literary community at large.

The primary areas of study are poetry and fiction, and admission is highly competitive. In addition to the poetry and fiction workshops, there are courses available that focus on writing drama, nonfiction and screenplays, as well as courses that provide practical experience in editing.

Student learning outcomes

Students in the M.F.A. in Creative Writing program will:

- Develop and refine their individual writerly voices, produce literary work of a high quality and demonstrate a comprehensive understanding of their own aesthetics, as well as the literary models and cultural sources of those aesthetics
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Student learning outcomes specific to fiction

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- Demonstrate a highly developed proficiency in understanding and creating story structures appropriate to their purpose and audience, as well as to their chosen literary modes and styles
- In a statement of purpose or aesthetics that is part of their thesis manuscripts, as well as in an exit interviews/thesis defense, appraise and locate their own work within literary and cultural contexts

Student learning outcomes specific to poetry

- Demonstrate a skillful use or knowledge of major poetic devices, such as metaphor, imagery, lineation, persona, types of rhythm, rhyme and other sonic effect.
- Demonstrate the use or knowledge of classic poetic forms, such as the sonnet, the ode and the elegy, as well as other contemporary, experimental or avantgarde forms.
- In a statement of purpose or aesthetics that is part of their thesis manuscript, as well as in an exit interview/ thesis defense, appraise and locate their own work within literary and cultural contexts

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students in the M.F.A. in Creative Writing
 program are required to earn a minimum of 48 graduate-level credit hours
 beyond the baccalaureate. At least half of the credit hours presented for
 graduation must be at the 600 level or higher.
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Curriculum requirements

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Degree candidacy requirements

Total graduate credit hours required (minimum)

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Graduation requirements



Other information

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Creative Writing, Master of Fine Arts (M.F.A.) with a concentration in poetry

Graduate program director

Gregory Donovan

Associate professor and director of creative writing, Department of English

gdonovan@vcu.edu (804) 828-1331

Additional contact

Thom Didato

Graduate programs adviser, Department of English tndidato@vcu.edu

(804) 828-1329

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Program website: english.vcu.edu/mfa

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Creative Writing, Master of Fine Arts (M.F.A.) with a concentration in fiction Creative Writing, Master of Fine Arts (M.F.A.) with a concentration in fiction and poetry

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
M.F.A.	Fall	Feb 1 (Jan 15 for consideration of assistantship)	GRE-General

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- Three recommendations from persons who are qualified to give information concerning the applicant's probable success in graduate school, especially in a creative writing program
- 3. A scholastic record that is indicative of the applicant's ability to pursue a graduate degree successfully
- 4. A baccalaureate degree or its equivalent from an accredited institution
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General academic regulations for all graduate students in all graduate programs at VCU



Program goals

Our selective and academically rigorous 48-credit-hour, three-year program is designed to provide talented writers with the opportunity to work closely with both outstanding faculty and gifted peers to strengthen their craft, develop their literary aesthetics, enrich their understanding of existing traditions as well as compositional possibilities, and to participate actively in the life of the literary community at large.

The primary areas of study are poetry and fiction, and admission is highly competitive. In addition to the poetry and fiction workshops, there are courses available that focus on writing drama, nonfiction and screenplays, as well as courses that provide practical experience in editing.

Student learning outcomes

Students in the M.F.A. in Creative Writing program will:

- Develop and refine their individual writerly voices, produce literary work of a high quality and demonstrate a comprehensive understanding of their own aesthetics, as well as the literary models and cultural sources of those aesthetics
- 2. Actively engage in a wider literary culture and community at the local, regional, national or international level
- Develop constructive workshop practices and demonstrate the ability to read closely and respond perceptively and critically to the writing of their fellow M.F.A. students
- Develop an advanced comprehension of editing and revision techniques and strategies, which include synthesizing challenges, advice and critiques from professors and fellow M.F.A. students
- 5. Develop, hone and articulate a keen sense of their artistic and career goals

Student learning outcomes specific to poetry

- Demonstrate a skillful use or knowledge of major poetic devices, such as metaphor, imagery, lineation, persona, types of rhythm, rhyme and other sonic effect.
- Demonstrate the use or knowledge of classic poetic forms, such as the sonnet, the ode and the elegy, as well as other contemporary, experimental or avantgarde forms.
- In a statement of purpose or aesthetics that is part of their thesis manuscript, as well as in an exit interview/ thesis defense, appraise and locate their own work within literary and cultural contexts

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students in the M.F.A. in Creative Writing program are required to earn a minimum of 48 graduate-level credit hours beyond the baccalaureate. At least half of the credit hours presented for graduation must be at the 600 level or higher.
- 2. Other requirements: Beyond the required courses, students should select elective courses, in conjunction with the program director or their thesis advisers, which are appropriate to their aims and interests. The thesis work gives students the opportunity to produce manuscripts of publishable quality. Course work also is available in the techniques of teaching creative writing, and the program is flexible enough to include studies undertaken in other departments of the university as well, including the departments of Art History, Theatre and Philosophy and the Richard T. Robertson School of Media and Culture.

Curriculum requirements

Courses Credit hours

Workshops	12
Choose four courses from the following workshops. The	
majority of the course work should be in the student's genre.	
ENCL 666 Creative Writing Fistion	3
ENGL 666 Creative Writing: Fiction ENGL 667 Creating Writing: Poetry	3
ENGL 667 Creating Witting: Poetry ENGL 668 Creative Writing: Drama	3
ENGL 608 Cleanve withing. Drama ENGL 671 Film and Television Scripts	3
ENGL 671 First and Television Scripts ENGL 672 Writing Nonfiction	3
ENGL 0/2 Witting Nonnetion	3
Elective courses in literature	12
Choose four courses from the following list:	
ENGL/TEDU 528 Children's Literature II	3
ENGL 560 Studies in British Literature and Culture	3
ENGL 570 Special Topics in American Literature and Culture	3
ENGL/ENED 601 Young Adult Literature	3
ENGL 605 Introduction to Scholarship in English Studies	3
ENGL 606 Literary Criticism	3
ENGL 611 Authors	3
ENGL 614 Cultural Discourses	3
ENGL 620 Intertextuality	3
ENGL 624 Texts and Contexts	3
ENGL 627 Genres	3
ENGL 629 Form and Theory of Poetry	3
ENGL 630 Form and Theory of Fiction	3
ENGL 631 Form and Theory of Creative Nonfiction	3
ENGL 692 Independent Study	1-
Additional recommended electives	18
May include up to three additional credit hours of thesis	
ENGL/TEDU 528 Children's Literature II	3
ENGL/ENED 532 Applied English Linguistics	3
ENGL 550 Studies in Linguistics	3
ENGL/TEDU/LING 552 Teaching English as a Second	3
Language	2
ENGL 560 Studies in British Literature and Culture	3
ENGL 570 Special Topics in American Literature and Culture	
ENGL/ENED 601 Young Adult Literature	3
ENGL 605 Introduction to Scholarship in English Studies ENGL 606 Literary Criticism	3
ENGL 610 Authors	3
ENGL 614 Cultural Discourses	3
ENGL 620 Intertextuality	3
ENGL 624 Texts and Contexts	3
ENGL 627 Genres	3
ENGL 629 Form and Theory of Poetry	3
ENGL 630 Form and Theory of Fiction	3
ENGL 631 Form and Theory of Creative Nonfiction	3
ENGL 632 Community Writing	3
ENGL 636 Teaching Writing	3
ENGL 637 Theories of Rhetoric and Composition	3
ENGL 638 Responding to Writing	3
ENGL 652 Studies in Writing and Rhetoric:	3
ENGL 661 Themes in Interdisciplinary Studies	3
ENGL 666 Creative Writing: Fiction	3
ENGL 667 Creating Writing: Poetry	3
ENGL 668 Creative Writing: Drama	3
ENGL 670 Literary Editing and Publishing	3
ENGL 671 Film and Television Scripts	3
ENGL 672 Writing Nonfiction	3
ENGL 673 Teaching Creative Writing	3

ENGL 692 Independent Study	1-3
ENGL 694 Internship in Writing	3
ENGL 798 Thesis	1-3
Thesis	6
ENGL 798 Thesis	1-3
Total graduate credit hours required (minimum)	48

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

M.F.A. Guide may be accessed online at english.vcu.edu/mfa/mfa-guide.

English, Master of Arts (M.A.)

Graduate program director

Joshua Eckhardt Associate professor jmeckhardt@vcu.edu (804) 828-1331

Additional contact

Thom Didato Graduate programs adviser, Department of English tndidato@vcu.edu (804) 828-1329

Program website: english.vcu.edu/ma

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

English, Master of Arts (M.A.) with a concentration in research

Apply online at graduate.admissions.vcu.edu.

Admission requirements

English, Master of Arts (M.A.)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.A.	Fall	Mar 1	GRE-General
	Spring	Oct 1	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- A baccalaureate degree in an area appropriate to the study of literature or writing
- 2. A GPA that indicates the applicant can successfully pursue a graduate degree
- 3. Three letters of recommendation from former instructors
- 4. Completion of the GRE (Applicants for the literature track may, but are not required to, submit scores for the GRE subject test in literature.)
- 5. A writing sample, optimally ranging from 10-15 double-spaced pages

Applicants may also indicate whether they intend to write a thesis and with which faculty members they hope to study.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The Department of English offers an M.A. degree for students seeking study beyond a bachelor's degree which prepares graduates to pursue a doctorate, to teach in secondary or higher education or to obtain other positions in the public and private sector. The M.A. in English is designed for students pursuing advanced English studies, and students may choose to focus their course work in either literature or writing and rhetoric. The M.A. in English with a research concentration is designed for students pursuing advanced English studies with an emphasis on research, criticism and methodology.

Student learning outcomes

- 1. Develop advanced reading and writing skills
- 2. Engage in theoretical and/or textual/bibliographical scholarship
- Conduct original research and advance an original argument under faculty direction
- 4. Explain and defend original research in a formal presentation or defense
- 5. Survey the professional and academic work to which the degree leads

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students in the M.A. in English program are required to earn a minimum of 30 graduate credit hours beyond the baccalaureate. At least half of the credit hours presented for graduation must be at the 600 level or higher.
- 2. Other requirements: Students must complete one of two final projects: either a directed study, under the supervision of a faculty member with a public presentation; or a thesis in consultation with a faculty committee, which culminates in an oral defense. Students must obtain approval for their final projects from their supervising faculty and the M.A. committee.

Curriculum requirements

Courses	Credit hour
Course requirements	5-7
ENGL 501 Introduction to Graduate Studies in English	1
ENGL 605 Introduction to Scholarship in English Studies or	3
ENGL 606 Literary Criticism	
ENGL 695 Directed Study/Major Project and Presentation	1-3
Choose courses from list of recommended electives below.	23-25
ENGL/TEDU 528 Children's Literature II	3
ENGL/ENED 532 Applied English Linguistics	3
ENGL 550 Studies in Linguistics	3
ENGL/TEDU/LING 552 Teaching English as a Second	3
Language	
ENGL 560 Studies in British Literature and Culture	3
ENGL 570 Special Topics in American Literature and Culture	3
ENGL/ENED 601 Young Adult Literature	3
ENGL 605 Introduction to Scholarship in English Studies	3
ENGL 606 Literary Criticism	3
ENGL 611 Authors	3
ENGL 614 Cultural Discourses	3
ENGL 620 Intertextuality	3
ENGL 624 Texts and Contexts	3
ENGL 627 Genres	3
ENGL 629 Form and Theory of Poetry	3
ENGL 630 Form and Theory of Fiction	3
ENGL 631 Form and Theory of Creative Nonfiction	3
ENGL 632 Community Writing	3
ENGL 636 Teaching Writing	3
ENGL 637 Theories of Rhetoric and Composition	3
ENGL 638 Responding to Writing	3
ENGL 652 Studies in Writing and Rhetoric:	3
ENGL 661 Themes in Interdisciplinary Studies	3
ENGL 666 Creative Writing: Fiction	3
ENGL 667 Creating Writing: Poetry	3
ENGL 668 Creative Writing: Drama	3
ENGL 670 Literary Editing and Publishing	3
ENGL 671 Film and Television Scripts	3
ENGL 672 Writing Nonfiction	-
ENGL 694 Internals in Writing	1-3
ENGL 694 Internship in Writing	3
Total graduate credit hours required (minimum)	30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the

student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



English, Master of Arts (M.A.) with a concentration in research

Graduate program director

Joshua Eckhardt Associate professor jmeckhardt@vcu.edu (804) 828-1331

Additional contact

Thom Didato Graduate programs adviser, Department of English tndidato@vcu.edu (804) 828-1329

Program website: english.vcu.edu/ma

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

English, Master of Arts (M.A.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

English, Maste	er of Arts (M.A.) with a	concentration in res	earch
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
M.A.	Fall	Mar 1	GRE-General
	Spring	Oct 1	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- A baccalaureate degree in an area appropriate to the study of literature or writing
- 2. A GPA that indicates the applicant can successfully pursue a graduate degree
- 3. Three letters of recommendation from former instructors
- 4. Completion of the GRE
- 5. A writing sample, optimally ranging from 10-15 double-spaced pages

Applicants may also indicate whether or not they intend to write a thesis, and with which faculty members they hope to study.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

> General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The Department of English offers an M.A. degree for students seeking study beyond a bachelor's degree which prepares graduates to pursue a doctorate, to teach in secondary or higher education or to obtain other positions in the public and private sector. The M.A. in English is designed for students pursuing advanced English studies, and students may choose to focus their course work in either literature or writing and rhetoric. The M.A. in English with a research concentration is designed for students pursuing advanced English studies with an emphasis on research, criticism and methodology.

Student learning outcomes

- 1. Develop advanced reading and writing skills
- Engage in theoretical and/or textual/bibliographical scholarship
- Conduct original research and advance an original argument under faculty direction
- Explain and defend original research in a formal presentation or defense
- 5. Survey the professional and academic work to which the degree leads

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students in the M.A. in English program are required to earn a minimum of 30 graduate credit hours beyond the baccalaureate. At least half of the credit hours presented for graduation must be at the 600 level or higher.
- Other requirements: Students must complete one of two final projects: either a directed study, under the supervision of a faculty member with a public presentation; or a thesis in consultation with a faculty committee, which culminates in an oral defense. Students must obtain approval for their final projects from their supervising faculty and the M.A. committee.

Curriculum requirements

Course requirements	10
ENGL 501 Introduction to Graduate Studies in English	1
ENGL 605 Introduction to Scholarship in English Studies or	3
ENGL 606 Literary Criticism (It is recommended that both	
ENGL 605 and 606 be completed for the research	
concentration.)	

ENGL 799 Thesis	6
Choose courses from the following list of recommended electives	20
ENGL/TEDU 528 Children's Literature II	3
ENGL/ENED 532 Applied English Linguistics	3
ENGL 550 Studies in Linguistics	3
ENGL/TEDU/LING 552 Teaching English as a Second	3
Language	
ENGL 560 Studies in British Literature and Culture	3
ENGL 570 Special Topics in American Literature and Culture	3
ENGL/ENED 601 Young Adult Literature	3
ENGL 605 Introduction to Scholarship in English Studies	3
ENGL 606 Literary Criticism	3
ENGL 611 Authors	3
ENGL 614 Cultural Discourses	3
ENGL 620 Intertextuality	3
ENGL 624 Texts and Contexts	3
ENGL 627 Genres	3
ENGL 629 Form and Theory of Poetry	3
ENGL 630 Form and Theory of Fiction	3
ENGL 631 Form and Theory of Creative Nonfiction	3
ENGL 632 Community Writing	3
ENGL 636 Teaching Writing	3
ENGL 637 Theories of Rhetoric and Composition	3
ENGL 638 Responding to Writing	3
ENGL 652 Studies in Writing and Rhetoric:	3
ENGL 661 Themes in Interdisciplinary Studies	3
ENGL 666 Creative Writing: Fiction	3
ENGL 667 Creating Writing: Poetry	3
ENGL 668 Creative Writing: Drama	3
ENGL 670 Literary Editing and Publishing	3
ENGL 671 Film and Television Scripts	3
ENGL 672 Writing Nonfiction	3
ENGL 692 Independent Study	1-3
ENGL 694 Internship in Writing	3
Total graduate credit hours required (minimum)	30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

Credit hours

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements

Courses



Media, Art, and Text, Doctor of Philosophy (Ph.D.)

Graduate program director

Eric G. Garberson, Ph.D. Associate professor, Department of Art History eggarberson@vcu.edu (804) 828-7295

Additional contact

Thom Didato Graduate programs adviser, Department of English tndidato@vcu.edu (804) 828-1329

Program website: matx.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Media, Art, an	d Text, Doctor of Philoso	phy (Ph.D.)	
Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE-General
	Fall	Jan 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission

- Applicants must hold a master's degree (M.A., M.F.A., M.S.) in a relevant field.
- Send the following, in the formats indicated, by email to the graduate programs adviser. Note: Materials submitted in any other way, as specified below (on paper, disk, etc.) will be discarded without review.
 - a. Writing sample demonstrating the ability to write clearly, analyze effectively and conduct original research in advanced doctoral-level seminars. This may be a master's thesis, a graduate-level seminar paper or a published essay. Submit as a PDF by email.
 - b. Statement of purpose describing the applicant's interest, motivation and goals in pursuing this degree. The statement should specifically address the importance of interdisciplinarity to the applicant's academic goals, and it should also offer evidence of preparation for the study of media, art, and text. The applicant should indicate the specific area of study and research to be pursued at VCU and identify faculty who might potentially direct dissertation research. Submit as a PDF by email. Note: This is a required separate submission of the same essay included in the online application.
 - c. Academic curriculum vitae or professional resume listing all colleges and universities attended and degrees earned, all professional and academic positions held, all publications and/or exhibitions, technical skills, and any other relevant information. Include URLs for personal and/or professional websites. Submit as PDF by email.
 - d. Letters of recommendation from three present or former instructors or other individuals qualified to evaluate the applicant's ability to engage in interdisciplinary study at the doctoral level. Have recommenders submit letters as PDFs directly to Thom Didato using only academic or professional email accounts.
- 5. Applicants who wish to pursue creative work at VCU must also submit a portfolio. Those with an M.F.A. who do not wish to continue creative work should consult with the MATX director about this requirement. Materials submitted should demonstrate excellence in studio or professional practice and the potential to do graduate-level work in media, art, and text. Portfolios will be reviewed by the MATX admissions committee as well as relevant faculty in the School of the Arts and the Richard T. Robertson School of Media and Culture. Please observe the following guidelines:

- a. Those working in 2-D or 3-D mediums should provide 20 images of representative work arranged chronologically, beginning with the most recent
- b. Those working in sound and time-based media, as well as those in the performing arts, should provide clips totaling no more than 10 minutes.
- c. Those working across media may submit a combination of the above.
- d. The portfolio should be accompanied by title, date, media and dimensions of the work, as well as a brief statement or other information that will help the admissions committee in evaluating the work.

Small files illustrating 2-D or 3-D work may be submitted as JPEGs or PDFs via email. Sound or video files should be posted to Vimeo or Sound Cloud with a functioning link submitted by email. Portfolio materials may also be posted to a personal or professional website and the link submitted by email.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

VCU's interdisciplinary doctoral program in media, art, and text is a joint endeavor of the Department of English, the School of the Arts and the Richard T. Robertson School of Media and Culture. The program prepares students primarily to teach at the college or university level, although some pursue careers in related media fields. MATX emphasizes the historical and theoretical foundations essential to the scholarly study of media, both old and new, broadly defined. It provides an intellectually stimulating environment that encourages students to work both collaboratively and independently, as well as across and between disciplines and media. Students maintain a base in their primary area of research, which is usually but not always the field in which they have done prior graduate work

Student learning outcomes

- Develop advanced communication skills in writing, speaking and the use of multimedia
- Demonstrate broad knowledge of history and theory as the foundation for interdisciplinary work in a specialized facet of media, art, and/or text
- Develop competence in interdisciplinary and disciplinary research methods and responsible conduct of research
- Develop specialized knowledge in relevant fields to support dissertation and subsequent research
- Demonstrate the ability to conduct independent research and produce new, specialized knowledge within the broad parameters of media, art, and text
- 6. Develop a strong basis for ongoing professional practice

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students in the MATX program are required to earn a minimum of 42 graduate-level credit hours beyond the master's. At least one-half of the credit hours presented for graduation must be at the 600 level or higher. The 42-hour curriculum comprises 36 hours of course work and a minimum of six hours of dissertation research. Course work includes a core of four required courses taken during the first two semesters by all incoming students. Three doctoral seminars provide a shared historical and theoretical foundation for the study of media, art, and text, while a workshop offers the opportunity to develop and expand professional and/or creative skills relevant to the student's career goals and research focus. In addition, all students will take a research methods course in a field relevant to their anticipated area of dissertation research. Beyond the core, students select 21 hours of elective credit hours from course offerings in disciplines relevant to their research interests and career goals. The program offers a topics seminar focused on the history, theory or practice of media, art, and text. Independent study and internships are also available as electives. While enrollment in courses with the MATX prefix is guaranteed to matriculated MATX students, enrollment in other graduate courses is subject to the conditions established by individual units. Together the core and the electives support the interdisciplinary work of the dissertation, which is an original scholarly examination of some aspect of media, art, and/or text. It may include work in media other than text. It is supervised by a committee consisting of four or five members drawn from disciplines relevant to the research topic.
- Grade requirements: To graduate, degree applicants must achieve an overall grade point average of 3.0 (B) on a 4.0 scale with a grade of C in no more than two courses. The GPA for graduation will be based on all graduate courses attempted after acceptance into the program.
- Requirements for admission to candidacy: Before beginning formal
 dissertation research, students must complete all 36 hours of required course
 work, both stages of the e-portfolio and the requirements described below.
 Upon completion of these, the student will apply for degree candidacy.
- 4. Dissertation committee: The dissertation committee consists of the director (who must hold a Ph.D.) and three or four additional members whose scholarly knowledge and interests are relevant to the project. The committee must have at least one member from each of the sponsoring units (Department of English, School of the Arts, Richard T. Robertson School of Media and Culture). All must be members of VCU's graduate faculty. Appropriate faculty from outside VCU may serve on committees (but not as director) with the approval of the MATX director and the graduate dean. It is the student's responsibility to assemble the committee, in consultation with the dissertation director. Committees will not be appointed by the program.
- 5. E-portfolio: Work on the e-portfolio will begin in MATX 604 in the spring of the first year. There are no technical specifications, and content will include, but is not limited to, work done in the first two years in the program. It will take the form of a website and must demonstrate the technical skills (Web design, audio, video, etc.) relevant to the student's work on the dissertation and the career sought after VCU. Submission is a two-stage process:
 - a. Stage 1 (May of the first year): a three- to five-page design rationale for the portfolio site along with a mock-up or rough structure
 - b. Stage 2 (April of the second year): a finished, live site accompanied by a five-page statement relating it to the student's work inside and outside the program and outlining how it uses media techniques to promote a specific professional and/or creative identity (Note: Each submission is graded pass/fail and may be repeated once. A second failure results in automatic termination from the program.)
- Competency: Candidates must demonstrate competency in a skill or technique relevant to the dissertation research or planned professional career. The dissertation committee approves and administers the competency portion. Graded pass/fail, the test may be repeated once.
- 4. Bibliography exam: Candidates will complete an exam on a reading list of 20 to 30 sources relevant to or supportive of the dissertation topic. The dissertation committee approves and administers the bibliography exam. Graded pass/fail, the test may be repeated once.

- 5. Dissertation prospectus and prospectus defense: The prospectus is a 15- to 20-page document that indicates the significance of the proposed research, gives a short review of relevant literature, states the research question, specifies the proposed methodology and indicates how the project lays the foundation for the anticipated academic or professional career. It also includes a work plan for the completion of research and writing, as well as a complete bibliography. The prospectus is defended orally before the dissertation committee, which may accept, reject or require revisions. The defense may be repeated once.
- 6. Dissertation and dissertation defense: The dissertation is an original, interdisciplinary and scholarly examination of a topic relevant to an aspect of media, art, and/or text. It may include work in media other than text. Given the varied nature of doctoral research, there is no set time frame for completion of a dissertation. It is expected, however, that the dissertation will take about two years after attaining candidacy, but it must be defended within the eight-year time limit for completion of the doctoral degree. The dissertation will be defended orally before the dissertation committee. Successful defense of the dissertation completes the requirements for the degree.

Curriculum requirements

Courses	Credit hours
MATX 601 Texts and Textuality	3
MATX 602 History of Media, Art, and Text	3
MATX 603 History of Interdisciplinarity and Multimedia	3
MATX 604 Workshop	3
MATX 897 Dissertation Project	6
Choose one methods course from list 1 below	3
Choose elective courses from list 2 below (Elective courses other than those listed may be taken with approval of the MATX program director and the offering department.)	21
Total graduate credit hours required (minimum)	42
List 1: Methods courses	
ARTH 690 Historiography and Methodology in Art History	3
ENGL 605 Introduction to Scholarship in English Studies	3
GSWS 602 Feminist Research Epistemology and Methods	3
MASC 611 Research Methods in Mass Communications	3
List 2: Recommended electives	
ARTH 591 Special Topics in Art History	1-6
ARTH 690 Historiography and Methodology of Art History	3
ARTH 722 Seminar in 19th-century Art	3
ARTH 723 Seminar in 20th-century Art	3
ARTH 741 Seminar in Art and Theory	3
ARTH 742 Seminar in Trans-millenial Art and Ideas	3
ARTH 743 Seminar in Art and Representation	3
ARTH 791 Special Topics in Art History	3
ENGL 560 Studies in British Literature and Culture	3
ENGL 570 Special Topics in American Literature and Culture	3
ENGL 605 Introduction to Scholarship in English Studies	3
ENGL 611 Authors	3
ENGL 614 Cultural Discourses	3
ENGL 620 Intertextuality	3
ENGL 624 Text and Contexts	3
ENGL 627 Genres	3
ENGL 629 Form and Theory of Poetry	3
ENGL 630 Form and Theory of Fiction	3
ENGL 631 Form and Theory of Creative Nonfiction	3
ENGL 661 Themes in Interdisciplinary Studies	3
GSWS 501 Feminist Theory	3

GSWS 602 Feminist Research Epistemology and Methods	3
GSWS 620 Theorizing Sexuality	3
GSWS 624 Gender and Cultural Production	3
GSWS 691 Topics in Gender, Sexuality and Women's Studies	1-3
KINE 591 Topics in Contemporary Media	3
KINE 690 Graduate Seminar	4
KINE 695 Advanced Sound	3
MASC 611 Research Methods in Mass Communications	3
MASC 645 Visual Journalism	3
MASC 684 Multiplatform Storytelling	3
MASC 688 Converged Media Applications	3
MASC 691 Topics in Mass Communications	1-3
MATX 690 Seminar in Media, Art, and Text	3
MATX 696 Internship	1-3
MATX 791 Directed Study (may be taken for a maximum of 12 credit	1-3
hours)	

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

The MATX student handbook is available at matx.vcu.edu/program/handbook.

Department of Forensic Science

The Department of Forensic Science offers programs leading to bachelor's and master's degrees.

The Bachelor of Science is for students who plan a career or graduate study in the forensic sciences. The forensic science program provides students with fundamental learning in forensic laboratory analyses and crime scene investigation, with academic emphasis in biology, chemistry and criminal justice. The program offers three concentrations: forensic biology, forensic chemistry and physical evidence. Students will select one of the three concentrations prior to the second semester of their sophomore year. The B.S. in Forensic Science supplies students with the necessary skills for professional careers in forensic laboratories, public and private, basic research laboratories, clinical laboratories, and/or to pursue graduate studies. Students also will be prepared to pursue advanced

degrees in the physical sciences, biological sciences, forensic science, law, allied health and medicine, to name a few.

The Master of Science in Forensic Science prepares students for careers as forensic scientists in government and private laboratories. Students receive indepth exposure to specializations within the field, including drug analysis, DNA analysis, trace evidence, criminalistics and legal issues.

For more information visit www.has.vcu.edu/forensics.

Administration

Michelle R. Peace

Instructor and Interim Department Chair

Tracey Dawson Cruz

Associate Professor and Graduate Program Director

Eric J. Hazelrigg

Assistant Professor and Undergraduate Program Director

www.has.vcu.edu/forensics

Forensic science courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow these links to forensic science (FRSC) courses or the (FRSZ) laboratories.

Forensic Science, Master of Science (M.S.) with a concentration in forensic biology

Program accreditation

Forensic Science Education Programs Accreditation Commission

Graduate program director

Tracey Dawson Cruz, Ph.D. Associate Professor tcdawson@vcu.edu (804) 828-0642

Program website: forensicscience.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Forensic Science, Master of Science (M.S.) with a concentration in forensic chemistry/trace

Forensic Science, Master of Science (M.S.) with a concentration in forensic chemistry/drugs and toxicology

Forensic Science, Master of Science (M.S.) with a concentration in forensic physical analysis

Apply online at graduate.admissions.vcu.edu.

Admission requirements

		Forensic Science, Master of Science (M.S.) with a concentration in forensic biology		
Semester(s)	Deadline	Test		
of entry:	dates:	requirements:		
Fall	Mar 1	GRE		
	of entry: Fall	of entry: dates:		

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Bachelor's degree in a natural science discipline, including forensic science, or a degree with equivalent course work
- 2. An undergraduate GPA that exceeds 2.9 on a 4.0 scale (Most students entering the forensic science graduate program have a minimum GPA of 3.0 on undergraduate work and a combined score of 300 or more on the verbal and quantitative sections of the GRE

- 3. Completion of eight credit hours (two semesters or equivalent) of organic chemistry with laboratories and eight credit hours (two semesters or equivalent) of general biology with laboratories
- Assessment of prior graduate course work and/or relevant laboratory experience (where applicable)
- 5. Three letters of recommendation pertaining specifically to the student's potential ability as a graduate student in forensic science
- 6. Personal statement
- 7. Satisfactory scores on GRE

Applicants are required to select a concentration and will be considered only for that concentration. If course work deficiencies are identified, students may be required to take additional foundational courses beyond those required for the concentration.

Additional admission requirements for concentration in forensic biology

In addition to the M.S. in Forensic Science general admission requirements, applicants to the forensic biology concentration must have completed a minimum of nine credit hours or equivalent of upper-level course work in the biological or biochemical sciences. This may include, but is not limited to, course work in cell biology, general biochemistry, genetics and/or molecular biology.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Science in Forensic Science is one of only a few of its kind in the U.S. The mission of the program is to prepare students for careers as forensic scientists in government and private forensic laboratories. In addition, students will be prepared to pursue further graduate and/or professional academic degrees.

Core courses in the forensic science curriculum offer broad exposure to forensic laboratory equipment and instrumentation, as well as legal issues, expert testimony, forensic biology, forensic chemistry, trace evidence, physical evidence, professional ethics, quality assurance and current topics in research and development within the forensic sciences. Students entering the program will be required to select a concentration by the end of the first semester. Concentrations offered include forensic biology, forensic chemistry/drugs and toxicology, forensic chemistry/trace and forensic physical analysis. A strong emphasis is placed on laboratory course work, providing students with significant laboratory and research experience. Several of the laboratory courses are taught by practicing professional forensic scientists at the Virginia Division of Forensic Science Central Laboratory, which is nationally accredited by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board.

Student learning outcomes

 Students will be able to apply basic principles and laboratory procedures of biology and chemistry to forensic science through focused study in the available concentration options.

- Students will demonstrate capabilities, use, potential and limitations of forensic laboratory theory and techniques.
- Students will demonstrate the ability to perform (report and orally present) independent research in an area of forensic science.
- Students will demonstrate an understanding of legal procedure, rules of evidence, ethical and professional duties and responsibilities of the forensic scientist.

Degree requirements

The graduate program is a full-time, two-year program. Courses will vary depending on the concentration selected. Required and elective courses are offered at various times, day and night, throughout the week. The M.S. in Forensic Science requires 42 graduate credit hours of course work, including 27 credit hours of required core course work and 15 credit hours of specialized course work designed for each concentration (including electives). The required course work includes a directed research project, which is an extensive research experience conducted within a forensic laboratory setting.

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students must complete a minimum of 42 graduate-level credit hours as outlined in the list of core and concentration requirements, including electives.
- 2. Grade requirements: Students must maintain an ongoing, cumulative minimum GPA of 3.0. Receipt of a grade of C in two or more courses will constitute an automatic dismissal from the graduate program in forensic science. Receipt of a grade of D or lower in any one course will constitute an automatic dismissal from the graduate program in forensic science.
- 3. Other requirements: Students must maintain continuous, full-time enrollment. Interruption in continuous enrollment or full-time status for any reason without a leave of absence approved by the forensic science graduate committee will require that students reapply to the program. Request for credit for graduate course work taken at other institutions must be submitted to the director of graduate studies in forensic science and will be considered on a case-by-case basis by the forensic science graduate committee. If course work deficiencies are identified, students may be required to take additional foundational courses beyond those listed below. These will not count toward the 42 required credit hours.

Curriculum requirements

Courses	Credit hours
Core courses	27
FRSC 570 Forensic Science Seminar [1, 2]	3
FRSC 661 Analysis of Pattern Evidence* or FRSC 662 Firearm and Toolmark Identification*	3
FRSC 670 Forensic Evidence and Criminal Procedure	3
FRSC 671 Instrumentation in Forensic Chemistry [2]	3
FRSC and FRSZ 673 Forensic Microscopy and Laboratory [2]	3
FRSC and FRSZ 675 Forensic Serology and DNA Analysis and Laboratory [2]	3
FRSC 677 Professional Practices and Expert Testimony	3
FRSC 793 Directed Research in Forensic Science	3
STAT 543/BIOS 543 Statistical Methods I	3
Forensic biology concentration courses	9
BIOL/HGEN 516 Population Genetics	3
FRSC 565 Scientific Crime Scene Investigation*	3
FRSC 676 Advanced Forensic DNA Analysis*	3
Recommended electives	6
Choose courses from list below in consultation with adviser. At	

least one elective must be a graduate-level molecular biology-

related course

BIOC/MICR 503 Biochemistry, Cell and Molecular Biology	3
BIOC/MICR 504 Biochemistry, Cell and Molecular Biology	3
BIOL 530/HGEN 501 Human Genetics	3
BIOL/BNFO 540 Fundamentals of Molecular Genetics	3
BIOL 693 Current Topics in Biology (molecular biology)	3
CHEM 506 Introduction to Spectroscopic Methods in Organic	1.5
Chemistry	1.5
CHEM 606 Advanced Spectroscopic Methods in Organic	1.5
Chemistry	
CHEM 630 Electroanalytical Chemistry	1.5/module
CHEM 631 Separation Science	1.5/module
CHEM 632 Chemometrics	1.5/module
CHEM 633 Mass Spectrometry	1.5/module
CHEM 634 Surface Science	1.5/module
CRJS 591 Topic Seminar (drugs and crime)	3
FRSC 520 Forensic Fire Investigation	3
FRSC 566 Advanced Crime Scene Investigation*	3
FRSC/PHTX 644 Forensic Toxicology	3
FRSC 661 Analysis of Pattern Evidence*	3
FRSC 662 Firearm and Toolmark Identification*	3
FRSC 663 Forensic Medicine	3
FRSC 672 Advanced Drug Analysis*	3
FRSC/CRJS 680 Forensic Psychiatry	3
FRSC 681 Analysis of Fire Debris and Explosives*	3
FRSC 682 Forensic Analysis of Paints and Polymers*	3
FRSC 692 Forensic Science Independent Study	1-3
FRSC 693 Current Topics in Forensic Science	1
PHIS 501 Mammalian Physiology	.5-5
PHTX 536 Principles of Pharmacology and Toxicology	5
PHTX 548 Drug Dependence	3
Total graduate credit hours required (minimum)	42

[1] One-credit hour must be completed each semester during first year

[2] Courses required during the first fall semester upon entry into the program

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

The forensic science graduate student handbook is available at forensic science.vcu.edu/grad/handbook.html.

Forensic Science, Master of Science (M.S.) with a concentration in forensic chemistry/drugs and toxicology

Program accreditation

Forensic Science Education Programs Accreditation Commission

Graduate program director

Tracey Dawson Cruz, Ph.D. Associate Professor tcdawson@vcu.edu (804) 828-0642

Program website: forensicscience.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Forensic Science, Master of Science (M.S.) with a concentration in forensic biology

Forensic Science, Master of Science (M.S.) with a concentration in forensic chemistry/trace

Forensic Science, Master of Science (M.S.) with a concentration in forensic physical analysis

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s)	Deadline	Test
Dog. co.	of entry:	dates:	requirements:
M.S.	Fall	Mar 1	GRE

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Bachelor's degree in a natural science discipline, including forensic science, or a degree with equivalent course work
- 2. An undergraduate GPA that exceeds 2.9 on a 4.0 scale (Most students entering the forensic science graduate program have a minimum GPA of 3.0 on undergraduate work and a combined score of 300 or more on the verbal and quantitative sections of the GRE
- Completion of eight credit hours (two semesters or equivalent) of organic chemistry with laboratories and eight credit hours (two semesters or equivalent) of general biology with laboratories
- Assessment of prior graduate course work and/or relevant laboratory experience (where applicable)
- Three letters of recommendation pertaining specifically to the student's potential ability as a graduate student in forensic science
- 6. Personal statement
- 7. Satisfactory scores on GRE

Applicants are required to select a concentration and will be considered only for that concentration. If course work deficiencies are identified, students may be required to take additional foundational courses beyond those required for the concentration.

Additional admission requirements for concentration in forensic chemistry/drugs and toxicology

^{*} Course consists of lecture and laboratory

In addition to the M.S. in Forensic Science general admission requirements, applicants to the concentration in forensic chemistry/drugs and toxicology must have completed a minimum of nine credit hours or equivalent of upper-level chemistry or biochemistry course work. This may include, but is not limited to, course work in physical chemistry, instrumental analysis, quantitative analysis, pharmacology and/or general biochemistry.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The Master of Science in Forensic Science is one of only a few of its kind in the U.S. The mission of the program is to prepare students for careers as forensic scientists in government and private forensic laboratories. In addition, students will be prepared to pursue further graduate and/or professional academic degrees.

Core courses in the forensic science curriculum offer broad exposure to forensic laboratory equipment and instrumentation, as well as legal issues, expert testimony, forensic biology, forensic chemistry, trace evidence, physical evidence, professional ethics, quality assurance and current topics in research and development within the forensic sciences. Students entering the program will be required to select a concentration by the end of the first semester. Concentrations offered include forensic biology, forensic chemistry/drugs and toxicology, forensic chemistry/trace and forensic physical analysis. A strong emphasis is placed on laboratory course work, providing students with significant laboratory and research experience. Several of the laboratory courses are taught by practicing professional forensic scientists at the Virginia Division of Forensic Science Central Laboratory, which is nationally accredited by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board.

Student learning outcomes

- Students will be able to apply basic principles and laboratory procedures of biology and chemistry to forensic science through focused study in the available concentration options.
- Students will demonstrate capabilities, use, potential and limitations of forensic laboratory theory and techniques.
- Students will demonstrate the ability to perform (report and orally present) independent research in an area of forensic science.
- Students will demonstrate an understanding of legal procedure, rules of evidence, ethical and professional duties and responsibilities of the forensic scientist.

Degree requirements

The graduate program is a full-time, two-year program. Courses will vary depending on the concentration selected. Required and elective courses are offered at various times, day and night, throughout the week. The M.S. in Forensic Science requires 42 graduate credit hours of course work, including 27 credit hours of required core course work and 15 credit hours of specialized course work

designed for each concentration (including electives). The required course work includes a directed research project, which is an extensive research experience conducted within a forensic laboratory setting.

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students must complete a minimum of 42 graduate-level credit hours as outlined in the list of core and concentration requirements, including electives.
- 2. Grade requirements: Students must maintain an ongoing, cumulative minimum GPA of 3.0. Receipt of a grade of C in two or more courses will constitute an automatic dismissal from the graduate program in forensic science. Receipt of a grade of D or lower in any one course will constitute an automatic dismissal from the graduate program in forensic science.
- 3. Other requirements: Students must maintain continuous, full-time enrollment. Interruption in continuous enrollment or full-time status for any reason without a leave of absence approved by the forensic science graduate committee will require that students reapply to the program. Request for credit for graduate course work taken at other institutions must be submitted to the director of graduate studies in forensic science and will be considered on a case-by-case basis by the forensic science graduate committee. If course work deficiencies are identified, students may be required to take additional foundational courses beyond those listed below. These will not count toward the 42 required credit hours.

Credit hours

Curriculum requirements

Courses

Courses	Credit nours
Core courses	27
FRSC 570 Forensic Science Seminar [1, 2]	3
FRSC 661 Analysis of Pattern Evidence* or FRSC 662 Firearm and Toolmark Identification*	3
FRSC 670 Forensic Evidence and Criminal Procedure	3
FRSC 671 Instrumentation in Forensic Chemistry [2]	3
FRSC and FRSZ 673 Forensic Microscopy and Laboratory [2]	3
FRSC and FRSZ 675 Forensic Serology and DNA Analysis and Laboratory [2]	3
FRSC 677 Professional Practices and Expert Testimony	3
FRSC 793 Directed Research in Forensic Science	3
STAT 543/BIOS 543 Statistical Methods I	3
Forensic chemistry/drugs and toxicology concentration courses	9
FRSC 565 Scientific Crime Scene Investigation* or FRSC 663 Forensic Medicine*	3
FRSC/PHTX 644 Forensic Toxicology	3
FRSC 672 Advanced Drug Analysis*	3
Recommended electives	6
Choose courses from list below in consultation with adviser.	
BIOC/MICR 503 Biochemistry, Cell and Molecular Biology	3
BIOC/MICR 504 Biochemistry, Cell and Molecular Biology	3
BIOL 530/HGEN 501 Human Genetics	3
BIOL/BNFO 540 Fundamentals of Molecular Genetics	3
BIOL 693 Current Topics in Biology (molecular biology)	3
CHEM 506 Introduction to Spectroscopic Methods in Organic Chemistry	3
CHEM 606 Advanced Spectroscopic Methods in Organic Chemistry	3
CHEM 630 Electroanalytical Chemistry	1.5/module
CHEM 631 Separation Science	1.5/module
CHEM 632 Chemometrics	1.5/module
CHEM 633 Mass Spectrometry	1.5/module
CHEM 634 Surface Science	1.5/module

CRJS 591 Topic Seminar (drugs and crime)	3
FRSC 520 Forensic Fire Investigation	3
FRSC 565 Scientific Crime Scene Investigation*	3
FRSC 566 Advanced Crime Scene Investigation*	3
FRSC 661 Analysis of Pattern Evidence*	3
FRSC 662 Firearm and Toolmark Identification*	3
FRSC 663 Forensic Medicine	3
FRSC 676 Advanced Forensic DNA Analysis*	3
FRSC/CRJS 680 Forensic Psychiatry	3
FRSC 681 Analysis of Fire Debris and Explosives*	3
FRSC 682 Forensic Analysis of Paints and Polymers*	3
FRSC 692 Forensic Science Independent Study	1-3
FRSC 693 Current Topics in Forensic Science	1
PHIS 501 Mammalian Physiology	.5-5
PHTX 536 Principles of Pharmacology and Toxicology	5
PHTX 548 Drug Dependence	3

[1] One-credit hour must be completed each semester during first year

Total graduate credit hours required (minimum)

[2] Courses required during the first fall semester upon entry into the program

* Course consists of lecture and laboratory

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

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Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

The forensic science graduate student handbook is available at forensic science.vcu.edu/grad/handbook.html.

Forensic Science, Master of Science (M.S.) with a concentration in forensic chemistry/trace

Program accreditation

Forensic Science Education Programs Accreditation Commission

Graduate program director

Tracey Dawson Cruz, Ph.D. Associate Professor tcdawson@vcu.edu (804) 828-0642

Program website: forensicscience.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Forensic Science, Master of Science (M.S.) with a concentration in forensic biology

Forensic Science, Master of Science (M.S.) with a concentration in forensic chemistry/drugs and toxicology

Forensic Science, Master of Science (M.S.) with a concentration in forensic physical analysis

Apply online at graduate.admissions.vcu.edu.

Admission requirements

42

Forensic Science, Master of Science (M.S.) with a concentration in forensic chemistry/trace			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.S.	Fall	Mar 1	GRE

enrollment openings are filled.

In addition to the general admission requirements of the VCU Graduate School,

the following requirements represent the minimum acceptable standards for admission:

- Bachelor's degree in a natural science discipline, including forensic science, or a degree with equivalent course work
- 2. An undergraduate GPA that exceeds 2.9 on a 4.0 scale (Most students entering the forensic science graduate program have a minimum GPA of 3.0 on undergraduate work and a combined score of 300 or more on the verbal and quantitative sections of the GRE
- Completion of eight credit hours (two semesters or equivalent) of organic chemistry with laboratories and eight credit hours (two semesters or equivalent) of general biology with laboratories
- Assessment of prior graduate course work and/or relevant laboratory experience (where applicable)
- 5. Three letters of recommendation pertaining specifically to the student's potential ability as a graduate student in forensic science
- 6. Personal statement
- 7. Satisfactory scores on GRE

Applicants are required to select a concentration and will be considered only for that concentration. If course work deficiencies are identified, students may be required to take additional foundational courses beyond those required for the concentration.

${\bf Additional\ admission\ requirements\ for\ concentration\ in\ forensic\ chemistry/\ trace}$

In addition to the M.S. in Forensic Science general admission requirements, applicants to the forensic chemistry/trace concentration must have completed a minimum of nine semester credit hours or equivalent of upper-level chemistry course work. This may include, but is not limited to, course work in physical chemistry, instrumental analysis, quantitative analysis and/or inorganic chemistry.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

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Student learning outcomes

- Students will be able to apply basic principles and laboratory procedures of biology and chemistry to forensic science through focused study in the available concentration options.
- Students will demonstrate capabilities, use, potential and limitations of forensic laboratory theory and techniques.
- Students will demonstrate the ability to perform (report and orally present) independent research in an area of forensic science.
- Students will demonstrate an understanding of legal procedure, rules of evidence, ethical and professional duties and responsibilities of the forensic scientist.

Degree requirements

The graduate program is a full-time, two-year program. Courses will vary depending on the concentration selected. Required and elective courses are offered at various times, day and night, throughout the week. The M.S. in Forensic Science requires 42 graduate credit hours of course work, including 27 credit hours of required core course work and 15 credit hours of specialized course work designed for each concentration (including electives). The required course work includes a directed research project, which is an extensive research experience conducted within a forensic laboratory setting.

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students must complete a minimum of 42 graduate-level credit hours as outlined in the list of core and concentration requirements, including electives.
- 2. Grade requirements: Students must maintain an ongoing, cumulative minimum GPA of 3.0. Receipt of a grade of C in two or more courses will constitute an automatic dismissal from the graduate program in forensic science. Receipt of a grade of D or lower in any one course will constitute an automatic dismissal from the graduate program in forensic science.

3. Other requirements: Students must maintain continuous, full-time enrollment. Interruption in continuous enrollment or full-time status for any reason without a leave of absence approved by the forensic science graduate committee will require that students reapply to the program. Request for credit for graduate course work taken at other institutions must be submitted to the director of graduate studies in forensic science and will be considered on a case-by-case basis by the forensic science graduate committee. If course work deficiencies are identified, students may be required to take additional foundational courses beyond those listed below. These will not count toward the 42 required credit hours.

Credit

Curriculum requirements

Courses

	hours
Core courses	27
FRSC 570 Forensic Science Seminar [1, 2]	3
FRSC 661 Analysis of Pattern Evidence* or FRSC 662 Firearm and Toolmark Identification*	3
FRSC 670 Forensic Evidence and Criminal Procedure	3
FRSC 671 Instrumentation in Forensic Chemistry [2]	3
FRSC and FRSZ 673 Forensic Microscopy and Laboratory [2]	3
FRSC and FRSZ 675 Forensic Serology and DNA Analysis and Laboratory [2]	3
FRSC 677 Professional Practices and Expert Testimony	3
FRSC 793 Directed Research in Forensic Science	3
STAT 543/BIOS 543 Statistical Methods I	3
Forensic chemistry/trace concentration courses	9
FRSC 565 Scientific Crime Scene Investigation*	3
FRSC 681 Analysis of Fire Debris and Explosives*	3
FRSC 682 Forensic Analysis of Paints and Polymers*	3
Recommended electives	6
Choose courses from list below in consultation with adviser. At least	
one elective must be a graduate-level chemistry course.	
BIOC/MICR 503 Biochemistry, Cell and Molecular Biology	3
BIOC/MICR 504 Biochemistry, Cell and Molecular Biology	3
BIOL 530/HGEN 501 Human Genetics	3
BIOL/BNFO 540 Fundamentals of Molecular Genetics	3
BIOL 693 Current Topics in Biology (molecular biology)	3
CHEM 506 Introduction to Spectroscopic Methods in Organic Chemistry	3
CHEM 606 Advanced Spectroscopic Methods in Organic Chemistry	3
CHEM 630 Electroanalytical Chemistry	1.5/module
CHEM 631 Separation Science	1.5/module
CHEM 632 Chemometrics	1.5/module
CHEM 633 Mass Spectrometry	1.5/module
CHEM 634 Surface Science	1.5/module
CRJS 591 Topic Seminar (drugs and crime)	3
FRSC 520 Forensic Fire Investigation	3
FRSC 566 Advanced Crime Scene Investigation*	3
FRSC/PHTX 644 Forensic Toxicology	3
FRSC 661 Analysis of Pattern Evidence*	3
FRSC 662 Firearm and Toolmark Identification*	3
FRSC 663 Forensic Medicine	3
FRSC 672 Advanced Drug Analysis*	3
FRSC 676 Advanced Forensic DNA Analysis*	3
FRSC/CRJS 680 Forensic Psychiatry	3
FRSC 692 Forensic Science Independent Study	1-3
FRSC 693 Current Topics in Forensic Science	1
PHIS 501 Mammalian Physiology	.5-5
PHTX 536 Principles of Pharmacology and Toxicology	5

PHTX 548 Drug Dependence

Total graduate credit hours required (minimum)

42

- 1 One-credit hour must be completed each semester during first year
- 2 Courses required during the first fall semester upon entry into the program
- * Course consists of lecture and laboratory

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

The forensic science graduate student handbook is available at forensic science.vcu.edu/grad/handbook.html.

Forensic Science, Master of Science (M.S.) with a concentration in forensic physical analysis

Program accreditation

Forensic Science Education Programs Accreditation Commission

Graduate program director

Tracey Dawson Cruz, Ph.D. Associate Professor tcdawson@vcu.edu (804) 828-0642

Program website: forensicscience.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Forensic Science, Master of Science (M.S.) with a concentration in forensic biology

Forensic Science, Master of Science (M.S.) with a concentration in forensic chemistry/drugs and toxicology

Forensic Science, Master of Science (M.S.) with a concentration in forensic chemistry/trace

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.S.	Fall	Mar 1	GRE

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Bachelor's degree in a natural science discipline, including forensic science, or a degree with equivalent course work
- An undergraduate GPA that exceeds 2.9 on a 4.0 scale (Most students entering the forensic science graduate program have a minimum GPA of 3.0 on undergraduate work and a combined score of 300 or more on the verbal and quantitative sections of the GRE
- Completion of eight credit hours (two semesters or equivalent) of organic chemistry with laboratories and eight credit hours (two semesters or equivalent) of general biology with laboratories
- 4. Assessment of prior graduate course work and/or relevant laboratory experience (where applicable)
- 5. Three letters of recommendation pertaining specifically to the student's potential ability as a graduate student in forensic science
- 6. Personal statement
- 7. Satisfactory scores on GRE

Applicants are required to select a concentration and will be considered only for that concentration. If course work deficiencies are identified, students may be required to take additional foundational courses beyond those required for the concentration.

Additional admission requirements for concentration in forensic physical analysis

In addition to the M.S. in Forensic Science general admission requirements, applicants to the forensic physical analysis concentration must have completed a minimum of nine credit hours or equivalent of upper-level science course work. This may include, but is not limited to, course work in the areas of biology, chemistry, physics or biochemistry.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Science in Forensic Science is one of only a few of its kind in the U.S. The mission of the program is to prepare students for careers as forensic

scientists in government and private forensic laboratories. In addition, students will be prepared to pursue further graduate and/or professional academic degrees.

Core courses in the forensic science curriculum offer broad exposure to forensic laboratory equipment and instrumentation, as well as legal issues, expert testimony, forensic biology, forensic chemistry, trace evidence, physical evidence, professional ethics, quality assurance and current topics in research and development within the forensic sciences. Students entering the program will be required to select a concentration by the end of the first semester. Concentrations offered include forensic biology, forensic chemistry/drugs and toxicology, forensic chemistry/trace and forensic physical analysis. A strong emphasis is placed on laboratory course work, providing students with significant laboratory and research experience. Several of the laboratory courses are taught by practicing professional forensic scientists at the Virginia Division of Forensic Science Central Laboratory, which is nationally accredited by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board.

Student learning outcomes

- Students will be able to apply basic principles and laboratory procedures of biology and chemistry to forensic science through focused study in the available concentration options.
- Students will demonstrate capabilities, use, potential and limitations of forensic laboratory theory and techniques.
- Students will demonstrate the ability to perform (report and orally present) independent research in an area of forensic science.
- Students will demonstrate an understanding of legal procedure, rules of evidence, ethical and professional duties and responsibilities of the forensic scientist.

Degree requirements

The graduate program is a full-time, two-year program. Courses will vary depending on the concentration selected. Required and elective courses are offered at various times, day and night, throughout the week. The M.S. in Forensic Science requires 42 graduate credit hours of course work, including 27 credit hours of required core course work and 15 credit hours of specialized course work designed for each concentration (including electives). The required course work includes a directed research project, which is an extensive research experience conducted within a forensic laboratory setting.

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students must complete a minimum of 42 graduate-level credit hours as outlined in the list of core and concentration requirements, including electives.
- 2. Grade requirements: Students must maintain an ongoing, cumulative minimum GPA of 3.0. Receipt of a grade of C in two or more courses will constitute an automatic dismissal from the graduate program in forensic science. Receipt of a grade of D or lower in any one course will constitute an automatic dismissal from the graduate program in forensic science.
- 3. Other requirements: Students must maintain continuous, full-time enrollment. Interruption in continuous enrollment or full-time status for any reason without a leave of absence approved by the forensic science graduate committee will require that students reapply to the program. Request for credit for graduate course work taken at other institutions must be submitted to the director of graduate studies in forensic science and will be considered on a case-by-case basis by the forensic science graduate committee. If course work deficiencies are identified, students may be required to take additional foundational courses beyond those listed below. These will not count toward the 42 required credit hours.

Curriculum requirements

Courses	Credit hours
Core courses	27
FRSC 570 Forensic Science Seminar [1, 2]	3
FRSC 661 Analysis of Pattern Evidence* or FRSC 662 Firearm and Toolmark Identification*	3

FRSC 670 Forensic Evidence and Criminal Procedure	3
FRSC 671 Instrumentation in Forensic Chemistry [2]	3
FRSC and FRSZ 673 Forensic Microscopy and Laboratory [2]	3
FRSC and FRSZ 675 Forensic Serology and DNA Analysis and	3
Laboratory [2]	
FRSC 677 Professional Practices and Expert Testimony	3
FRSC 793 Directed Research in Forensic Science	3
STAT 543/BIOS 543 Statistical Methods I	3
Forensic physical analysis concentration courses	6
FRSC 565 Scientific Crime Scene Investigation*	3
FRSC 661 Analysis of Pattern Evidence* or FRSC 662 Firearm and Toolmark Identification*	3
Recommended electives	9
Choose courses from list below in consultation with adviser.	
BIOC/MICR 503 Biochemistry, Cell and Molecular Biology	3
BIOC/MICR 504 Biochemistry, Cell and Molecular Biology	3
BIOL 530/HGEN 501 Human Genetics	3
BIOL/BNFO 540 Fundamentals of Molecular Genetics	3
BIOL 693 Current Topics in Biology (molecular biology)	3
CHEM 506 Introduction to Spectroscopic Methods in Organic	1.5
Chemistry	1.5
CHEM 606 Advanced Spectroscopic Methods in Organic	1.5
Chemistry	
CHEM 630 Electroanalytical Chemistry	1.5/module
CHEM 631 Separation Science	1.5/module
CHEM 632 Chemometrics	1.5/module
CHEM 633 Mass Spectrometry	1.5/module
CHEM 634 Surface Science	1.5/module
CRJS 591 Topic Seminar (drugs and crime)	3
FRSC 520 Forensic Fire Investigation	3
FRSC 566 Advanced Crime Scene Investigation*	3
FRSC/PHTX 644 Forensic Toxicology	3
FRSC 661 Analysis of Pattern Evidence*	3
FRSC 662 Firearm and Toolmark Identification*	3
FRSC 663 Forensic Medicine	3
FRSC 676 Advanced Forensic DNA Analysis*	3
FRSC/CRJS 680 Forensic Psychiatry	3
FRSC 681 Analysis of Fire Debris and Explosives*	3
FRSC 682 Forensic Analysis of Paints and Polymers*	3
FRSC 692 Forensic Science Independent Study	1-3
FRSC 693 Current Topics in Forensic Science	1
PHIS 501 Mammalian Physiology	.5-5
PHTX 536 Principles of Pharmacology and Toxicology	5
PHTX 548 Drug Dependence	3
Total graduate credit hours required (minimum)	42

- [1] One-credit hour must be completed each semester during first year
- [2] Courses required during the first fall semester upon entry into the program
- * Course consists of lecture and laboratory

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

The forensic science graduate student handbook is available at forensicscience.vcu.edu/grad/handbook.html.

Department of Gender, Sexuality and Women's Studies

Kimberly Nichelle Brown

Associate Professor and Department Chair

www.has.vcu.edu/wst

Gender, sexuality and women's studies provides a broad interpretation and view of diversity, including the interdisciplinary, cross-cultural examination of women's perspectives and experiences, masculinity and femininity, and heterosexuality and alternate sexualities as culturally constructed and socially experienced.

Gender, sexuality and women's studies courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to gender, sexuality and women's studies (GSWS) courses.

Gender, Sexuality and Women's Studies, Certificate in (Post-baccalaureate graduate certificate)

Graduate program director

Kimberly N. Brown, Ph.D.

Chair, Department of Gender, Sexuality and Women's Studies knbrown@ycu.edu

(804) 828-3893

Program website: gsws.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Fall

Gender, Sexuality and Women's Studies, Certificate in (Post-baccalaureate graduate certificate) Degree: Semester(s) Deadline Test Certificate of entry: dates: requirements:

Jul 30

Spring Nov 30

Special requirements:

Fall semester entrance is required for students without prior course work in gender, sexuality or women's studies (graduate or undergraduate).

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission: Students possessing a B.A. or B.S. degree are eligible for admission into this certificate program.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Department of Gender, Sexuality and Women's Studies is devoted to the interdisciplinary, multicultural study of the achievements, contributions, perspectives, experiences, roles and status of women encompassing the intersectionality of race, class, age, ethnicity, disability status, nationality and sexual identity.

Student learning outcomes

- Have a firm grasp of the feminist paradigm, including feminist theories and the theoretical frameworks that inform the analysis of social, cultural, historical, economic and political forces that shape the experiences of women
- 2. Demonstrate facility for problem-solving and critical-thinking
- 3. Demonstrate facility for intersectional analysis as it relates to diversity
- 4. Be grounded in and understand the linkages between the liberal arts and sciences including commonalities, differences and contributions of each to the field of gender, sexuality and women's studies

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students in the Certificate in Gender, Sexuality and Women's Studies program are required to earn a minimum of 15 graduatelevel credit hours beyond the baccalaureate.
- Grade requirements: An overall GPA of 3.0 is required for award of the certificate, and no more than three credit hours of C may be earned in the certificate program curriculum.

Curriculum requirements

Courses	Credit hour
Required courses	
GSWS 501 Feminist Theory	3
GSWS 602 Feminist Research Epistemology and Methods	3
GSWS 620 Theorizing Sexuality	3
Choose courses from list of recommended electives below	6
Total graduate credit hours required (minimum)	15
Recommended electives	
(Courses outside departmental GSWS offerings require prior approval.)	
GSWS 622 Women and Public Policy	3
GSWS 624 Gender and Cultural Production	3
GSWS 691 Topics in Gender, Sexuality and Women's Studies	1-3
GSWS 692 Independent Study	variable
HIST (500- and 600-level)	3
PSYC (500- and 600-level)	3
SOCY (500- and 600-level)	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of History

The Department of History offers programs at the graduate and undergraduate levels, specializing in a multidimensional analysis of the human past. Faculty research interests vary among thematic, topical, national or chronological emphases. For more information regarding the department and its specialty areas, visit the Web at www.has.vcu.edu/his.

Administration

811 and 813 South Cathedral Place P.O. Box 842001 Richmond, Virginia 23284 (804) 828-1635 Fax: (804) 828-7085 www.has.vcu.edu/his

John T. Kneebone

Associate Professor and Department Chair

Peter Stone

Assistant Professor, Assistant to the Chair and Faculty Adviser for Undergraduate Studies

Sarah Meachan

Associate Professor and Director of Graduate Studies

Kathleen Murphy

Administrative Coordinator

History courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to history (HIST) courses.

History, Master of Arts (M.A.)

Graduate program director

Sarah Meacham, Ph.D.

Associate professor and director of graduate studies

shmeacham@vcu.edu

(804) 828-1635

Program website: history.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

History, Master of Arts (M.A.)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.A.	Fall	Jul 1	GRE
	Spring	Dec 1	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Normally, 30 credit hours of undergraduate history courses, of which 18 credit hours should be at the upper-division level
- 2. A GPA indicative of the ability to successfully pursue a graduate degree
- Three letters of recommendation from persons qualified to provide information concerning the applicant's probable success in graduate school
- 4. Satisfactory completion of the Graduate Record Examination
- Submission of a written statement of intent, indicating why the applicant wishes to pursue a graduate degree in history

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the

University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The master's program in history draws on faculty expertise and the wealth of historical resources available in the Richmond area to support the extended exploration of the human past and the craft of history. It prepares students for the successful practice of historical scholarship in a variety of fields including archives, libraries, historical sites, museums, government agencies, businesses, publishing and secondary education, as well as for advanced study in doctoral programs.

Student learning outcomes

Graduates of the program will:

- 1. Develop the ability to understand the processes and methodologies historians use to study the past
- Develop the ability to understand and think critically about scholarly works of history
- 3. Develop the ability to do historical research and present interpretations in writing
- 4. Develop the ability to understand the myriad of forces that shape human experiences and critically weigh change and continuity over time

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- 1. The Master of Arts in History may be achieved through one of two options:
- The thesis option requires 30 graduate credit hours with six credit hours of HIST 698.
- 3. The non-thesis option requires 36 graduate credit hours with a minimum of six credits in research-level courses and an oral comprehensive exam.
- At least half of the credit hours presented for graduation must be at the 600 level or higher.
- 5. Students may take up to six credits of non-history electives from an approved list of elective courses. In addition, students who wish to pursue specific areas of study may, with the approval of the graduate director, substitute other courses when appropriate, but in no case shall be able to count more than six credit hours of non-history courses.

Curriculum requirements

Thesis option

Courses	Credit hours
Required courses	9
HIST 601 Historiography and Methodology	3
HIST 698 M.A. Thesis	6
Electives Choose from the following courses. With prior approval, a student may take up to six graduate credit hours from outside of the history department.	21
HIST 511 Studies in American History	3
HIST 515 Studies in European History	3

HIST 519 Studies in Ethnic and Social History	3
HIST 523 Studies in Virginia and Southern History	3
HIST 527 Studies in African-American History	3
HIST 591 Special Topics in History	1-3
HIST 611 Readings in American History	3
HIST 615 Readings in European History	3
HIST 618 Readings in Transatlantic History	3
HIST 619 Readings in Ethnic and Social History	3
HIST 623 Readings in Virginia and Southern History	3
HIST 627 Readings in African-American History	3
HIST 631 Research in American History	3
HIST 635 Research in European History	3
HIST 638 Research in Transatlantic History	3
HIST 639 Research in Ethnic and Social History	3
•	3
HIST 643 Research in Virginia and Southern History	
HIST 647 Research in African-American History	3
HIST 691 Special Topics in History	1-3
HIST 692 Independent Study or HIST 693 Internship in History	
TEDU 627 Exploring Historical Consciousness	3
Total graduate credit hours required (minimum)	30
Non-thesis option	
n	
Required course	3
HIST 601 Historiography and Methodology	3
Electives	33
Choose two research courses from:	6
HIST 631 Research in American History	3
HIST 635 Research in European History	3
HIST 638 Research in Transatlantic History	3
HIST 639 Research in Ethnic and Social History	3
HIST 643 Research in Virginia and Southern History	3
HIST 647 Research in African-American History	3
Choose additional electives the following courses. With prior approval, a student may take up to six graduate credit hours from outside of the history department.	27
War and a live of the latest and the	2
HIST 511 Studies in American History	3
HIST 515 Studies in European History	3
HIST 519 Studies in Ethnic and Social History	3
HIST 523 Studies in Virginia and Southern History	3
HIST 527 Studies in African-American History	3
HIST 591 Special Topics in History	1-3
HIST 611 Readings in American History	3
HIST 615 Readings in European History	3
HIST 618 Readings in Transatlantic History	3
HIST 619 Readings in Ethnic and Social History	3
HIST 623 Readings in Virginia and Southern History	3
HIST 627 Readings in African-American History	3
HIST 631 Research in American History	3
HIST 635 Research in European History	3
HIST 638 Research in Transatlantic History	3
HIST 639 Research in Ethnic and Social History	3
HIST 643 Research in Virginia and Southern History	3
HIST 647 Research in African-American History	3
HIST 691 Special Topics in History	1-3
HIST 692 Independent Study or HIST 693 Internship in	6 (maximum)
History	
TEDU 627 Exploring Historical Consciousness	3

Total graduate credit hours required (minimum)

36

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of Kinesiology and Health Sciences

The Department of Kinesiology and Health Sciences offers programs that prepare students to pursue careers in community health, careers that employ exercise interventions for both healthy and diseased populations and/or careers designed for students who wish to enter a health care-related field (that does not require licensure, certification or registry status). The department offers one undergraduate degree program: the Bachelor of Science in Health, Physical Education and Exercise Science. There are three concentrations within the B.S. in Health, Physical Education and Exercise Science: community health education, exercise science and health science.

Along with the undergraduate program, the department also offers a Master of Science in Health and Movement Sciences and Doctor of Philosophy in Rehabilitation and Movement Science.

The M.S. in Health and Movement Sciences program provides advanced course work for students interested in the application of health and movement science principles to exercise science, teaching and sports medicine. This program has a central focus on the sciences and is flexible enough so that students, with the assistance of an adviser, can design a program that truly meets their professional goals.

The Doctor of Philosophy in Rehabilitation and Movement Science program is interdisciplinary in nature and includes faculty from the departments of Kinesiology and Health Sciences, Physical Therapy, and Physical Medicine and Rehabilitation. Students choose a concentration in either exercise physiology or neuromusculoskeletal dynamics.

For more information, consult the department's website at hhp.vcu.edu.

Adminstration

Edmund O. Acevedo

Associate Professor and Department Chair

Health and Movement Sciences, Master of Science (M.S.) with a concentration in exercise science

Graduate program director

Ronald K. Evans, Ph.D.

Associate professor and director of graduate studies, Department of Kinesiology and Health Sciences

(804) 828-1948

Program website: khs.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular ontions.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Health and Movement Sciences, Master of Science (M.S.) with a concentration in exercise science

Degree:	Semester(s)	Deadline	Test	
	of entry:	dates:	requirements:	
M.S.	Fall	Mar 15	GRE-General	
	Spring	Nov 1	MAT	
	Summer	Mar 15		

In addition to the general admission requirements of the VCU Graduate School, applicants must have received a bachelor's degree in exercise science or a related field from an accredited university or college.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

This program provides advanced course work for students interested in the application of health and movement science principles to exercise science, teaching and sports medicine. Applicants planning to enter the teaching profession should hold a valid teaching endorsement. Students admitted to this program typically have backgrounds in exercise science, life science or related fields. This program does not provide opportunities for initial licensure in health and physical education.

Student learning outcomes

- Demonstrate an understanding of research design and statistical applications relative to the disciplines comprising the health and movement sciences
- 2. Demonstrate mastery of essential knowledge in health and movement science
- Demonstrate a comprehensive or advanced knowledge of the field of health and movement science

3

3

3

3

3

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students in the M.S. in Health and Movement Sciences program are required to earn a minimum of 36 graduate-level credit hours beyond the baccalaureate. At least one-half of the credit hours presented for graduation must be at the 600 level or higher.
- 2. Master's-level candidacy and requirements: The Master of Science in Health and Movement Sciences program offers a thesis and non-thesis option. After completing at least 12 graduate credit hours and not more than 18 credit hours, with a minimum GPA of 3.0, all students must apply for advancement to candidacy. In the thesis option, students must complete HEMS 798 Thesis for six credit hours and 30 hours of prescribed course work. Students enrolling in this option will not be required to complete a comprehensive examination. In the non-thesis option, students must complete 36 hours of prescribed course work and must pass a comprehensive examination, which is taken after completing 30 hours of course work.

Curriculum requirements

Thesis option

Courses	Credit hours
DIOCIOTATICA OLICICI IN ALLI	2
BIOS/STAT 543 Statistical Methods I	3
HEMS 600 Introduction to Research Design in Health and	3
Movement Sciences	
HEMS/REMS 601 Movement Physiology	3
HEMS 604 Nutrition for Health and Physical Activity	3
HEMS 605 Psychology of Physical Activity	3
HEMS 610 Laboratory Techniques in Rehabilitation Science	3
HEMS/REMS 611 Biomechanics of Human Motion or a course	3
from the list of general electives	
HEMS 675 Clinical Exercise Physiology	3
HEMS 798 Thesis	6
General elective from list below	3
Specified elective from list below	3
Total graduate credit hours (minimum)	36

Non-thesis option

Courses	Credit hours
BIOS/STAT 543 Statistical Methods I	3
HEMS 600 Introduction to Research Design in Health and Movement Sciences	3
HEMS 601 Movement Physiology	3
HEMS 604 Nutrition for Health and Physical Activity	3
HEMS 605 Psychology of Physical Activity	3
HEMS 610 Laboratory Techniques in Rehabilitation Science	3
HEMS 611 Biomechanics of Human Motion or a course from the list of general electives	3
HEMS 675 Clinical Exercise Physiology	3
HEMS 692 Independent Study or HEMS 797 Directed Research Study	ch 3
HEMS 695 Externship	3
General elective from list below	3
Specified elective from list below	3
Total graduate credit hours required (minimum)	36
Specified electives	
HEMS 550 Exercise, Nutrition and Weight Management	3

REMS 703 Cardiovascular Exercise Physiology	3
REMS 704 Psychobiology of Physical Activity	3
REMS 705 Metabolic Aspects of Physical Activity	3
General electives	
HEMS 550 Exercise, Nutrition and Weight Management	3
HEMS/REMS 660 Neuromuscular Performance	3
HEMS 692 Independent Study	3
HEMS 695 Externship	3
HEMS 797 Directed Research Study	3
REMS 690 Research Seminar in Rehabilitation and Movement	0.5
Science	

REMS 705 Metabolic Aspects of Physical Activity Degree candidacy requirements

REMS 701 Advanced Exercise Physiology I

REMS 702 Advanced Exercise Physiology II

REMS 703 Cardiovascular Exercise Physiology

REMS 704 Psychobiology of Physical Activity

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Rehabilitation and Movement Science, Doctor of Philosophy (Ph.D.) with a concentration in exercise physiology

Graduate program director

Ronald K. Evans, Ph.D.

Associate professor and director of graduate studies, Department of Kinesiology and Health Sciences

rkevans@vcu.edu

(804) 828-1948

Additional contact

Sheryl D.G. Finucane, Ph.D., P.T.

Assistant professor and graduate program director, Department of Physical Therapy

sfinucan@vcu.edu

(804) 828-0234

Program website: sahp.vcu.edu/pt/prospective/phd/rehabmovement.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Rehabilitation and Movement Science, Doctor of Philosophy (Ph.D.) with a concentration in neuromusculoskeletal dynamics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

In addition to the general admission requirements of the VCU Graduate School, applicants must:

- Have completed at least one of a master's degree in a related area, 30 hours of post-baccalaureate work (e.g. course work at 500 level or greater) or a first-professional degree program
- 2. Provide official GRE score
- Submit a curriculum vitae or professional resume indicating an applicant's educational and career experience as well as evidence of research potential

Admission decisions are made only on the basis of a completed application packet.

Applicants being considered for admission must complete an interview with a Ph.D. admissions committee representative and/or research faculty member with whom the student would like to work.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Ph.D. in Rehabilitation and Movement Science is an interdisciplinary degree program developed through a collaborative partnership of the departments of Kinesiology and Health Sciences, Physical Therapy, and Physical Medicine and Rehabilitation. The mission of this collaborative degree program is to prepare applied scientists capable of approaching multifaceted health care, preventive medicine and rehabilitation initiatives from an integrative perspective and to prepare graduates to assume research, teaching and leadership positions within rehabilitation and movement science professions.

There are two program concentrations: exercise physiology and neuromusculoskeletal dynamics. The exercise physiology concentration prepares individuals to conduct research, direct external funding initiatives and teach in the area of exercise physiology, with particular focus on physical activity's impact on chronic disease states. The neuromusculoskeletal dynamics concentration prepares individuals for research, teaching and clinical initiatives associated with the identification and rehabilitation of movement disorders.

Student learning outcomes

At the completion of the program students will:

- Demonstrate teaching effectiveness in the classroom, clinical environment or both
- Have disseminated research findings at an appropriate regional, national or international conference
- Demonstrate the ability to independently collect research data, analyze research data and synthesize conclusions from research data

Degree requirements

In addition to general VCU Graduate School graduation requirements, students pursuing the Ph.D. in Rehabilitation and Movement Science must successfully complete:

- 1. A minimum of 50 credit hours developed in conjunction with their advisers
- 2. Written and oral comprehensive examinations
- 3. All other university requirements of qualification for degree candidacy
- 4. Written dissertation based on a focused line of research
- 5. Oral defense of the dissertation

Curriculum requirements

Courses	Credit hours
Research core courses	12
ALHP 761 Health Related Sciences Research Design or EDUS 710 Educational Research Design or HADM 761 Health Services Research Methods I or HEMS 600 Introduction to Research Design in Health and Movement Sciences	3
STAT/BIOS 543 Statistical Methods I	3
STAT/BIOS 544 Statistical Methods II	3
One additional research design class from above or one of the following: ALHP 716 Grant Writing and Project Management in Health Related Sciences or BIOS 531 Clinical Epidemiology or BIOS 553 Linear Regression or BIOS 571 Clinical Trials or BIOS 572 Statistical Analysis of Biomedical Data	3
Core concentration	18
PHIS 501 Mammalian Physiology	3
REMS 701 Advanced Exercise Physiology I	3
REMS 703 Cardiovascular Exercise Physiology or REMS 704 Psychobiology of Physical Activity or REMS 705 Metabolic Aspects of Physical Activity	3
Approved electives (from list below)	9
Laboratory rotations	3
REMS 710 Research Techniques in Rehabilitation and Movement Science	3
Professional development course work	5
REMS 690 Research Seminar in Rehabilitation and Movement Science	3
REMS 793 Teaching Practicum in Higher Education	1
REMS 794 Research Presentation Seminar	1
Dissertation research	12
REMS 798 Research in Rehabilitation and Movement Science	12
KEWIS 170 Research in Renaumation and Movement Science	12

Total graduate credit hours required (minimum) 50 Approved electives **BIOL 524 Endocrinology** 3 HEMS 610 Laboratory Techniques in Rehabilitation Science 3 HEMS 675 Clinical Exercise Physiology 3 PHTX 614 Foundation in Psychoneuroimmunology 3 REMS/HEMS 660 Neuromuscular Performance 3 REMS 702 Advanced Exercise Physiology II 3 REMS 703 Cardiovascular Exercise Physiology 3 REMS 704 Psychobiology of Physical Activity 3 REMS 705 Metabolic Aspects of Physical Activity 3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Rehabilitation and Movement Science, Doctor of Philosophy (Ph.D.) with a concentration in neuromusculoskeletal dynamics

Graduate program director

Sheryl D.G. Finucane, Ph.D., P.T.

Assistant professor and graduate program director, Department of Physical Therapy

sfinucan@vcu.edu

(804) 828-0234

Additional contact

Ronald K. Evans, Ph.D.

Associate professor and director of graduate studies, Department of Kinesiology and Health Sciences

rkevans@vcu.edu

(804) 828-1948

Program website: sahp.vcu.edu/pt/prospective/phd/rehabmovement.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Rehabilitation and Movement Science, Doctor of Philosophy (Ph.D.) with a concentration in exercise physiology

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE
	Fall preferred	Applications receiv prior to Jan 9 will b given priority consideration	

In addition to the general admission requirements of the VCU Graduate School, applicants must:

- Have completed at least one of a master's degree in a related area, 30 hours of post-baccalaureate work (e.g. course work at 500 level or greater) or a first-professional degree program
- 2. Provide official GRE score
- 3. Submit a curriculum vitae or professional resume indicating an applicant's educational and career experience as well as evidence of research potential

Admission decisions are made only on the basis of a completed application packet.

Applicants being considered for admission must complete an interview with a Ph.D. admissions committee representative and/or research faculty member with whom the student would like to work.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Ph.D. in Rehabilitation and Movement Science is an interdisciplinary degree program developed through a collaborative partnership of the departments of Kinesiology and Health Sciences, Physical Therapy, and Physical Medicine and Rehabilitation. The mission of this collaborative degree program is to prepare applied scientists capable of approaching multifaceted health care, preventive medicine and rehabilitation initiatives from an integrative perspective and to prepare graduates to assume research, teaching and leadership positions within rehabilitation and movement science professions.

There are two program concentrations: exercise physiology and neuromusculoskeletal dynamics. The exercise physiology concentration prepares individuals to conduct research, direct external funding initiatives and teach in the area of exercise physiology, with particular focus on physical activity's impact on chronic disease states. The neuromusculoskeletal dynamics concentration prepares

individuals for research, teaching and clinical initiatives associated with the identification and rehabilitation of movement disorders.

Student learning outcomes

At the completion of the program students will:

- Demonstrate teaching effectiveness in the classroom, clinical environment or both
- Have disseminated research findings at an appropriate regional, national or international conference
- Demonstrate the ability to independently collect research data, analyze research data and synthesize conclusions from research data

Degree requirements

In addition to general VCU Graduate School graduation requirements, students pursuing the Ph.D. in Rehabilitation and Movement Science must successfully complete:

- 1. A minimum of 50 credit hours developed in conjunction with their advisers
- 2. Written and oral comprehensive examinations
- 3. All other university requirements of qualification for degree candidacy
- 4. Written dissertation based on a focused line of research
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Curriculum requirements

Courses	_	redit ours
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STAT/BIOS 543 Statistical Methods I	3	
STAT/BIOS 544 Statistical Methods II	3	
One additional research design class from above or one of the following: ALHP 716 Grant Writing and Project Management in Health Related Sciences or BIOS 531 Clinical Epidemiology or BIOS 553 Linear Regression or BIOS 571 Clinical Trials or BIOS 572 Statistical Analysis of Biomedical Data	3	
Core concentration		18
REMS/HEMS 611 Biomechanics of Human Motion	3	
REMS/HEMS 660 Neuromuscular Performance	3	
REMS 665 Instrumentation in Motion Analysis	3	
Approved electives (from list below)	9	
Laboratory rotations		3
REMS 710 Research Techniques in Rehabilitation and Movement Science	3	
Professional development course work		5
REMS 690 Research Seminar in Rehabilitation and Movement Science	3	
REMS 793 Teaching Practicum in Higher Education	1	
REMS 794 Research Presentation Seminar	1	
Dissertation research		12
REMS 798 Research in Rehabilitation and Movement Science	12	2
Total graduate credit hours required (minimum)		50
Approved electives		
EPID 622 Maternal and Child Health	3	
PSYC 603 Developmental Processes	3	

PSYC 614 Infant Growth and Development	3
REMS/PHTY 608 Advanced Musculoskeletal Sciences	3
REMS/PHTY 612 Advanced Biomechanics	3
REMS 692 Independent study	3

Degree candidacy requirements

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of Mathematics and Applied Mathematics

The Department of Mathematics and Applied Mathematics offers an undergraduate program leading to a Bachelor of Science in Mathematical Sciences with concentrations in applied mathematics, biomathematics, mathematics and secondary mathematics teacher preparation. The department administers the Master of Science in Mathematical Sciences concentrations in applied mathematics or mathematics and is involved in administering the Doctor of Philosophy in Systems Modeling and Analysis. The curricula of these programs are run jointly with additional concentrations offered by the Department of Statistical Sciences and Operations Research.

Administration

Norma Ortiz-Robinson

Associate Professor and Interim Department Chair

math.vcu.edu

Mathematics and applied mathematics courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Students registering for CMSC 201 or 255, MATH 131, 141, 151, 200, 211 or 300, or STAT 208 or 210 must place into these courses either from receiving VCU credit for stated prerequisite courses (for instance, MATH 151 is a stated prerequisite course for MATH 200) or from a satisfactory score (within a 39-month period immediately preceding the beginning of the course) on the VCU Mathematics Placement Test.

Follow this link to mathematics and applied mathematics (MATH) courses.

Use this link to see systems modeling and analysis (SYSM) courses.

Mathematical Sciences, Master of Science (M.S.) with a concentration in applied mathematics

Graduate program director

Richard H. Hammack, Ph.D.

Graduate coordinator, concentrations in mathematics and applied mathematics rhammack@vcu.edu

(804) 828-6237

Program website: math.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Mathematical Sciences, Master of Science (M.S.) with a concentration in mathematics

Mathematical Sciences, Master of Science (M.S.) with a concentration in operations research

Mathematical Sciences, Master of Science (M.S.) with a concentration in statistics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Mathematical S mathematics	Sciences, Master of Sciences	ence (M.S.) with a co	ncentration in applied
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.S.	Fall	Mar 1	GRE – general TOEFL (international
	Spring	Oct 1	students only)

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Thirty credit hours in undergraduate mathematical sciences, computer science or related areas of which at least 18 credit hours must represent upper-level courses
- 2. Three letters of recommendation pertaining to the student's potential ability as a graduate student in mathematical sciences

Provisional admission may be granted when deficiencies exist. These deficiencies must be removed by the end of the first year of residence, or its part-time equivalent, when the student's application will be re-examined. Courses that are remedial or designed to remove deficiencies will not be accepted for credit hours toward the fulfillment of the course requirements for the master's degree.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

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 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The Department of Mathematics and Applied Mathematics and the Department of Statistical Sciences and Operations Research jointly offer the M.S. in Mathematical Sciences.

The mission of the Department of Mathematics and Applied Mathematics is to foster excellence in mathematical research and to offer a strong undergraduate and graduate education that will prepare students for stimulating and rewarding employment, career and lifelong learning opportunities. In addition, the department strives to help all VCU students achieve a level of quantitative literacy and analytical skills enabling them to deal effectively with the quantitative issues that they will encounter throughout their lives.

The program offers maximum flexibility by allowing students, in consultation with their graduate committees, to design a course of study that will best develop competence in those areas most relevant to their scholarly and professional objectives. Students may obtain a designation on their transcripts indicating that their graduate study has emphasized the applied mathematics concentration by completing the requirements that are listed here. A student who has not satisfied the requirements for one of the program concentrations offered, but who has otherwise fulfilled all the requirements for a master's degree, will be awarded a degree of Master of Science in Mathematical Sciences without any specialization.

Student learning outcomes

- Students will develop creative-thinking skills to apply to mathematical problems and proofs.
- Students will be able to analyze mathematical arguments and write their own arguments and proofs.
- 3. Students will be able to read and interpret mathematical literature including technical articles within their chosen mathematical subfield.
- Students will be able to use technology, including specialized computational and graphics software, to test the validity of certain conjectures, to solve problems, to conduct mathematical experiments and do mathematical research.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to meet the following requirements.

- Credit hour requirements. Students in the M.S. in Mathematical Sciences
 program are required to earn a minimum of 30 graduate-level credit hours. At
 least one-half of the credit hours presented for graduation must be at the 600
 level or higher.
- Other requirements. For the non-thesis option, students must pass a comprehensive exam in the 600-level sequence (six credit hours) in the core and a comprehensive exam in two additional MATH courses (three credit hours each) of their choice.

Curriculum requirements

Thesis option

Courses	Credit hours
Concentration core courses	12
MATH 532 Ordinary Differential Equations I [1]	3
MATH 533 Partial Differential Equations I [1]	3
Choose one sequence from:	6
MATH 615 Numerical Analysis and MATH 715 Numerical Solutions for Differential Equations or MATH 632 Ordinary Differential Equations II and MATH 732 Ordinary Differential Equations III	
Additional courses	18
MATH 690 Research Seminar [2]	1-3
MATH 697 Directed Research [2]	0-3
MATH 698 Thesis	3 or 6

Applied mathematical sciences electives (Choose courses from list 1 below.)	6
Mathematical sciences or allied field electives (Choose courses from list 2 below.)	6-9

Total graduate credit hours required (minimum)

Non-thesis option

list 1 below.)

from list 2 below.)

Courses	Credit hours
Concentration core courses	12
MATH 532 Ordinary Differential Equations I [1]	3
MATH 533 Partial Differential Equations I [1]	3
Choose one sequence from:	6
MATH 615 Numerical Analysis and MATH 715 Numerical Solutions for Differential Equations or MATH 632 Ordinary Differential Equations II and MATH 732 Ordinary Differential Equations III	
Additional courses	18
MATH 690 Research Seminar [3]	2-5
MATH 697 Directed Research [3]	0-3
Applied mathematical sciences electives (Choose courses from	9

- [1] If a student previously received credit hours for one or both of these courses or their equivalent(s), then one or two of the other courses mentioned for concentration must be taken as substitute(s) to satisfy the minimum requirement of 15 credit hours of course work in the concentration.
- [2] A maximum total of seven credit hours for MATH 690, MATH 697 and MATH 698 may count toward the degree.

Mathematical sciences or allied field electives (Choose courses

Total graduate credit hours required (minimum)

[3] A maximum total of four credit hours for MATH 690 and MATH 697 may count toward the degree.

List 1: recommended electives in applied mathematical Credit hours sciences

MATH 511 Applied Linear Algebra	3
MATH 512 Complex Analysis for Applications	3
MATH 515 Numerical Analysis I	3
MATH 516 Numerical Analysis II	3
MATH 534 Applied Discrete Dynamical Systems	3
MATH 615 Numerical Analysis	3
MATH 632 Ordinary Differential Equations II	3
MATH 634 Partial Differential Equations	3
MATH 640 Mathematical Biology I	3
MATH 715 Numerical Solutions for Differential Equations	3
MATH 732 Ordinary Differential Equations III	3
MATH 740 Mathematical Biology II	3
STAT/BIOS 513 Mathematical Statistics I	3
STAT/BIOS 514 Mathematical Statistics II	3

List 2: recommended electives in mathematical sciences or allied field

MATH 500- or 600-level courses except the following:

MATH 504 Algebraic Structures and Functions

MATH 554 Using Technology in the Teaching of Mathematics

MATH 661 Number and Operations

MATH 662 Geometry and Measurement

MATH 663 Functions and Algebra

MATH 664 Statistics and Probability

MATH 665 Rational Numbers and Proportional Reasoning

MATH 667 Functions and Algebra II

OPER 500- or 600-level courses

30

6-9

30

STAT 500- or 600-level courses **except** the following:

STAT/SOCY 508 Introduction to Social Statistics

STAT 541 Applied Statistics for Engineers and Scientists

STAT/BIOS 543 Statistical Methods I

STAT/SOCY 608 Statistics for Social Research

Degree candidacy requirements

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Graduation requirements



Mathematical Sciences, Master of Science (M.S.) with a concentration in mathematics

Graduate program director

Richard H. Hammack, Ph.D.

Graduate coordinator, concentrations in mathematics and applied mathematics $\label{eq:mathematics} \begin{aligned} &\text{rhammack} @\text{vcu.edu} \end{aligned}$

(804) 828-6237

Program website: math.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Mathematical Sciences, Master of Science (M.S.) with a concentration in applied mathematics

Mathematical Sciences, Master of Science (M.S.) with a concentration in operations research

Mathematical Sciences, Master of Science (M.S.) with a concentration in statistics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Mathematical mathematics	Sciences, Master of Sci	ence (M.S.) with a co	ncentration in
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements
M.S.	Fall	Mar 1	GRE-General
			TOEFL
	Spring	Oct 1	(International
	, 0		students only)

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

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- Three letters of recommendation pertaining to the student's potential ability as a graduate student in mathematical sciences

Provisional admission may be granted when deficiencies exist. These deficiencies must be removed by the end of the first year of residence, or its part-time equivalent, when the student's application will be re-examined. Courses that are remedial or designed to remove deficiencies will not be accepted for credit hours toward the fulfillment of the course requirements for the master's degree.

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Program goal

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The mission of the Department of Mathematics and Applied Mathematics is to foster excellence in mathematical research and to offer a strong undergraduate and graduate education that will prepare students for stimulating and rewarding employment, career and lifelong learning opportunities. In addition, the department strives to help all VCU students achieve a level of quantitative literacy and analytical skills enabling them to deal effectively with the quantitative issues that they will encounter throughout their lives.

The program offers maximum flexibility by allowing students, in consultation with their graduate committees, to design a course of study that will best develop competence in those areas most relevant to their scholarly and professional objectives. Students may obtain a designation on their transcripts indicating that their graduate study has emphasized the mathematics concentration by completing the requirements that are listed here. A student who has not satisfied the requirements for one of the program concentrations offered, but who has otherwise fulfilled all the requirements for a master's degree, will be awarded a degree of Master of Science in Mathematical Sciences without any specialization.

Student learning outcomes

- Students will develop creative-thinking skills to apply to mathematical problems and proofs.
- Students will be able to analyze mathematical arguments and write their own arguments and proofs.
- Students will be able to read and interpret mathematical literature including technical articles within their chosen mathematical subfield.
- Students will be able to use technology, including specialized computational
 and graphics software, to test the validity of certain conjectures, to solve
 problems, to conduct mathematical experiments and do mathematical
 research.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to meet the following requirements.

- Credit hour requirements. Students in the M.S. in Mathematical Sciences
 program are required to earn a minimum of 30 graduate-level credit hours. At
 least one-half of the credit hours presented for graduation must be at the 600
 level or higher.
- Other requirements. For the non-thesis option, students must pass a
 comprehensive exam in the 600-level sequence (six credit hours) in the core
 and a comprehensive exam in two additional MATH courses (three credit
 hours each) of their choice.

Curriculum requirements

Thesis option

Courses	Credit hours
Concentration core courses	9
MATH 507 Measure and Integration Theory	3
Choose one sequence from: MATH 601, 602 Abstract Algebra I, II; MATH 607 Measure and Integration Theory and MATH 707 Functional Analysis I; MATH 711-712 Complex Analysis I-II; or MATH 756-757 Graph Theory I-II	6
Additional courses	21
MATH 690 Research Seminar [1]	1-3
MATH 697 Directed Research [1]	0-3
MATH 698 Thesis [1]	3 or 6
Mathematical sciences electives (Choose courses from list 1 below.)	6
Mathematical sciences or allied field electives (Choose courses from list 2 below.)	6-9
Total graduate credit hours required (minimum)	30
Non-thesis option	
Concentration core courses	9
MATH 507 Measure and Integration Theory	3
Choose one sequence from: MATH 601, 602 Abstract Algebra I, II; MATH 607 Measure and Integration Theory and MATH 707 Functional Analysis I; MATH 711-712 Complex Analysis I-II; or MATH 756-757 Graph Theory I-II	6
Additional courses	21
MATH 690 [2] Research Seminar	2-5
MATH 697 [2] Directed Research	0-3

Mathematical sciences electives (Choose courses from list 1 below.)	9
Mathematical sciences or allied field electives (Choose courses from list 2 below.)	6-9

Total graduate credit hours required (minimum) 30

[1] A maximum total of seven credit hours for MATH 690, MATH 697 and MATH 698 may count toward the degree.

[2] A maximum total of four credit hours for MATH 690 and MATH 697 may count toward the degree.

List 1: recommended electives in mathematical sciences	Credit hours
MATH 505 Modern Geometry	3
MATH 509 General Topology I	3
MATH 510 General Topology II	3
MATH 512 Complex Analysis for Applications	3
MATH 521 Introduction to Algebraic Number Theory	3
MATH 525 Introduction to Combinatorial Mathematics	3
MATH 556 Fundamentals of Graph Theory I	3
MATH 591 Topics in Mathematics	3
MATH 601 Abstract Algebra I	3
MATH 602 Abstract Algebra II	3
MATH 607 Measure and Integration Theory	3
MATH 610 Advanced Linear Algebra	3
MATH 691 Special Topics in Mathematics	3
MATH 707 Functional Analysis I	3
MATH 711 Complex Analysis I	3
MATH 712 Complex Analysis II	3
MATH 750 Combinatorics I	3
MATH 751 Combinatorics II	3
MATH 756 Graph Theory I	3
MATH 757 Graph Theory II	3

List 2: recommended electives in mathematical sciences or allied field

MATH 500- or 600-level courses except the following:

MATH 504 Algebraic Structures and Functions

MATH 554 Using Technology in the Teaching of Mathematics

MATH 661 Number and Operations

MATH 662 Geometry and Measurement

MATH 663 Functions and Algebra

MATH 664 Statistics and Probability

MATH 665 Rational Numbers and Proportional Reasoning

MATH 667 Functions and Algebra II

OPER 500- or 600-level courses

STAT 500- or 600-level courses **except** the following:

STAT/SOCY 508 Introduction to Social Statistics

STAT 541 Applied Statistics for Engineers and Scientists

STAT/BIOS 543 Statistical Methods I

STAT/SOCY 608 Statistics for Social Research

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Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Systems Modeling and Analysis, Doctor of Philosophy (Ph.D.)

Graduate program director

Edward L. Boone, Ph.D.

 $Associate\ professor,\ Department\ of\ Statistical\ Sciences\ and\ Operations\ Research\ elboone@vcu.edu$

(804) 828-4637

Additional contact:

Lucy R. Hudson Administrative assistant s2lrhuds@ycu.edu

(804) 828-0001

Program website: sysm.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Systems Modeling and Analysis, Doctor of Philosophy (Ph.D.)			
Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements GRE-General
	Fall	Feb 1	
	Spring	Nov 1	
	Summer	Jul 1	

In addition to general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

admission deadlines are only for students not seeking an assistantship.

- Have completed an undergraduate degree with at least 30 credit hours of undergraduate-level mathematics, including calculus I and II, multivariate calculus, linear algebra, probability and statistics
- Have completed 18 credit hours in the following six graduate courses:
 optimization, stochastic simulation, mathematical statistics I and II,
 differential equations and real analysis, or they can be conditionally admitted
 to the program pending completion of these six courses with a minimum
 grade of B in each course

Students who received their previous degree more than three years prior to entering this program and who have not taken additional courses in mathematics, operations research or statistics in the past three years will be required to take an entrance exam covering the six graduate courses listed in item 2 above.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The Ph.D. in Systems Modeling and Analysis is offered jointly by the Department of Statistical Sciences and Operations Research and the Department of Mathematics and Applied Mathematics. The program focuses on the development of the mathematical and computational skills used to conceptualize and analyze real-world systems. Faculty and students will engage and collaborate to contribute to the knowledge base used in the fields of science, medicine, business and engineering. The continued development of operations research, statistics and applied mathematics is critical to scientific advancement in the 21st century. The curriculum enables students to expand the frontiers of knowledge through original, relevant research involving quantitative and qualitative complex systems derived from real, contemporary problems facing our world.

Student learning outcomes

- Gain a solid foundation in the theory and application of optimization, stochastic process, simulation, decision analysis and biomathematics, and demonstrate a comprehensive understanding of these concepts
- Learn to perform appropriate collection, modeling and analysis of data using statistical methods
- Demonstrate the ability to identify situations in which mathematics, operations research or statistics can be applied and model the situation
- 4. Demonstrate the ability to solve a wide variety of mathematics, operations research or statistics problems using the software commonly used in industry
- Demonstrate the ability to write code using appropriate research programming environments to implement research ideas
- Learn how to interpret the analysis from mathematics, operations research or statistics models to draw meaningful conclusions about the systems being studied
- Gain the ability to successfully communicate research ideas through writing and presentations
- 8. Gain the skills needed to successfully participate in research under the guidance of faculty

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

 Credit hour requirements: Students in the systems modeling and analysis Ph.D. program are required to earn a minimum of 57 graduate-level credit hours beyond the baccalaureate. At least one-half of the credit hours presented for graduation must be at the 600 level or higher.

- 2. Doctoral candidacy: Admission to candidacy is made by evaluation of a qualifying portfolio, including exams and project work from courses; writing samples from the research seminars (SYSM 681, 682 and 683); research products from systems research projects (SYSM 697); and statements from faculty advisers and instructors. The portfolio can be submitted after all course work has been completed, as well as any additional preparatory course work required at admission. The candidacy committee will evaluate the student's readiness to begin their dissertation work. Supplementary examination may be required by the committee.
- 3. Dissertation proposal: After admission to candidacy and the completion of all course work, the student will prepare a written and oral proposal of the intended dissertation research area, including a complete literature review. A successful proposal must be completed at least nine months prior to the dissertation defense.
- 4. Dissertation defense: The student must complete 18 credit hours in SYSM 798 Dissertation Research resulting in a publishable dissertation and a successful oral defense. The student also must have submitted at least one paper to a refereed academic journal and prepared a second manuscript or given a conference presentation on the research prior to the defense.

Curriculum requirements

Courses	Credit hours
MATH 532 Ordinary Differential Equations I	3
OPER 639 Practical Optimization	3
STAT 546 Linear Models	3
SYSM 681 Systems Seminar I	1
SYSM 682 Systems Seminar II	1
SYSM 683 Systems Seminar III	1
SYSM 697 Systems Research*	3
SYSM 798 Dissertation Research	18
Electives (Choose courses from lists 1, 2 and/or 3 below.**)	24
Total graduate credit hours required (minimum)	57

- *Students are required to take SYSM 697 with a faculty adviser before admission to candidacy.
- **Students must complete at least 12 credit hours at the 700-level and must complete courses in at least two of the following subject areas: mathematics, operations research and statistics. If students choose to take electives in two subject areas, they must take at least six credit hours in each area. If students choose to take electives in three subject areas, they must take at least three credit hours in each area. Electives will be determined based on a student's research interests and in consultation with their advisers and the graduate program director.

List 1: Elective courses in mathematics	Credit hours
MATH 601 Abstract Algebra I	3
MATH 602 Abstract Algebra II	3
MATH 603 Advanced Probability Theory	3
MATH 604 Advanced Probability Theory	3
MATH 607 Measure and Integration Theory	3
MATH 608 Real Analysis II	3
MATH 610 Advanced Linear Algebra	3
MATH 615 Numerical Analysis	3
MATH 620 Theory of Partial Differential Equations	3
MATH 632 Ordinary Differential Equations II	3
MATH 633 Asymptotic and Perturbation Methods	3
MATH 634 Partial Differential Equations	3
MATH 640 Mathematical Biology I	3
MATH/ENGR 655 Dynamics and Multivariable Control II	3
MATH 691 Special Topics in Mathematics	3

MATH 707 Functional Analysis I	3
MATH 711 Complex Analysis I	3
MATH 712 Complex Analysis II	3
MATH 715 Numerical Solutions for Differential Equations	3
MATH 719 Operational Methods	3
MATH 721 Boundary Value Problems	3
MATH 732 Ordinary Differential Equations III	3
MATH 740 Mathematical Biology II	3
MATH 750 Combinatorics I	3
MATH 751 Combinatorics II	3
MATH 751 Combinatories in MATH 756 Graph Theory I	3
MATH 750 Graph Theory II	3
MATH 757 Graph Fluority II MATH 759 Graph Enumeration	3
MATH 769 Special Topics in Mathematical Life Sciences	3
	3
MATH 770 Fourier Analysis	
MATH 787 Special Topics in Discrete Mathematics	3
List 2: Elective courses in operations research	
OPER 627 Optimization II	3
OPER 635 Network Models and Graph Theory	3
1 ,	
OPER/STAT 636 Machine Learning Algorithms	3
OPER 641 Stochastic Simulation and Monte Carlo Methods	
OPER 643 Decision and Risk Analysis	3
OPER 645 Queuing Theory	3
OPER 647 Multiobjective Decision Analysis	3
OPER/STAT 648 Systems Reliability Analysis	3
OPER/STAT 649 Statistical Quality Control	3
OPER 691 Special Topics in Operations Research	3
OPER 731 Discrete Optimization	3
OPER 732 Optimization Under Uncertainty	3
OPER/STAT 736 Mathematics of Knowledge and Search Engines	3
OPER 741 Advanced Stochastic Simulation	3
OPER 743 Decision Analysis II	3
OPER 791 Special Topics in Operations Research	3
List 3: Elective courses in statistics	
STAT 613 Stochastic Processes	3
STAT 623 Discrete Multivariate Analysis	3
STAT/OPER 636 Machine Learning Algorithms	3
STAT 645 Bayesian Decision Theory	3
STAT/OPER 648 Systems Reliability Analysis	3
STAT/OPER 649 Statistical Quality Control	3
STAT/BIOS 650 Design and Analysis of Response Surface Experiments	3
STAT 675 Time Series Analysis I	3
STAT 691 Special Topics in Statistics	3
STAT/OPER 736 Mathematics of Knowledge and Search Engines	3
STAT 742 Design and Analysis of Experiments II	3
STAT 744 Regression II	3
STAT 745 Advanced Bayesian Statistics	3
STAT 791 Special Topics in Statistics	3
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Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of Philosophy

Anthony Ellis

Professor and Department Chair

www.has.vcu.edu/phi/philos/phi_home.htm

Philosophy aims at a deeper understanding of matters that should most concern the human race. Philosophical questions crop up in science, religion, art, morality, politics, medicine and in everyday life. Students enrolled in philosophy are encouraged to think seriously about fundamental issues in all these domains and to formulate coherent and well-grounded points of view. Because of its extensive use of critical and analytical reasoning, philosophy equips students for careers in medicine, law, business and other fields that require careful thought and the clear expression of ideas.

The Department of Philosophy offers a Bachelor of Arts in Philosophy. The department offers courses for students in other programs, as well as for those majoring in philosophy or religious studies.

Philosophy courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to philosophy (PHIL) courses.

Department of Physics

The Department of Physics offers programs leading to the Bachelor of Science in Physics and the Master of Science in Physics and Applied Physics. The department also offers an accelerated B.S.-M.S. program that allows students in the baccalaureate program to take graduate courses that will count toward the M.S. in Physics degree.

Administration

Robert Gowdy

Associate Professor and Department Chair

physics.vcu.edu

Physics courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow these links to physics (PHYS) courses or the (PHYZ) laboratories.

Physics and Applied Physics, Master of Science (M.S.)

Graduate program director

Shiv N. Khanna, Ph.D.

Commonwealth Professor snkhanna@vcu.edu (804) 828-1818

Additional contact

Robert H. Gowdy, Ph.D. Chair, Department of Physics rgowdy@vcu.edu (804) 828-1818

Program website: physics.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Physics and Applied Physics, Master of Science (M.S.), accelerated Bachelor of Science in Physics (B.S.) to master's

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Physics and Applied Physics, Master of Science (M.S.)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.S.	Fall	May 1	GRE
	Spring	Dec 1	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Students must have a minimum of 30 credit hours in undergraduate physics or engineering, of which at least 18 credit hours must be at the upper-level in physics.
- 2. Students must present satisfactory GRE scores.

Provisional admission may be granted where deficiencies exist. These deficiencies must be removed by the end of the first year of residence or its part-time equivalent, when the student's application will be re-examined. Courses that are designed to remove deficiencies will not be accepted for credit toward the graduate degree.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Department of Physics teaches graduate students advanced concepts, applications and skills that reach to the frontiers of current research in physics. The master's program offers traditional core physics courses and a variety of specialized electives emphasizing the department's strengths in theoretical and experimental physics. Research interests include theoretical and experimental

condensed matter physics, general relativity, and cosmology and physics education

Student learning outcomes

- 1. Students will achieve a broad knowledge of the principles of physics.
- 2. Students will demonstrate analytical problem-solving skills.
- Students will demonstrate mastery of a topic at the frontier of physics research.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

- Credit hour requirements: Students are required to earn a minimum of 30 graduate credit hours with at least 15 credit hours at the 600 level. PHYS 690 and PHYS 697 may not exceed 15 of the required 30 credit hours.
- 2. M.S. plan of study: Students will choose a primary adviser during the first semester of study. At the end of the first semester, the student and adviser will propose an M.S. plan of study to the physics graduate curriculum committee. This plan will include the graduate courses and research subject matter to fulfill the student's individual career goals. Normally, students will select courses for their individual M.S. plans of study from the list of graduate courses in physics. The courses selected will include no fewer than nine credits of traditional physics core courses, such as PHYS 576 and PHYS 580, to provide a solid foundation in fundamental physics. However, students also may select graduate courses in chemistry, mathematics, computer science and engineering, as well as courses from the School of Medicine and the School of Education, when such courses are consistent with the student's career goals. The M.S. plan of study must be approved by the physics graduate curriculum committee. Courses taken outside this plan will not count toward the above general course requirements.
- 3. Thesis or non-thesis option: Each student must select either the thesis option or non-thesis option. Students selecting the thesis option must take at least nine credit hours of PHYS 697 Directed Research. No more than nine credit hours of directed research may be counted toward the 15 credit-hour, 600-level requirement. Students selecting the non-thesis option may take no more than three credit hours of PHYS 697. A student who elects the non-thesis option must pass a written comprehensive exam administered by the physics graduate curriculum committee.

Curriculum requirements

Curriculum requirements	
Courses	Credit hours
Core courses	9
Choose nine credits from:	
NANO 570 Nanoscale Physics	3
NANO 650 Experimental Techniques in Nanoscience I	1.5
NANO 651 Experimental Techniques in Nanoscience II	1.5
PHYS 571 Theoretical Mechanics	3
PHYS 576 Electromagnetic Theory	3
PHYS 580 Quantum Mechanics	3
PHYS 641 Solid State Physics	3
Thesis option	21
PHYS 690 Research Seminar	0-4
PHYS 697 Directed Research	9
Electives (Choose courses from list of recommended electives below.)	8-12
Non-thesis option	21
PHYS 690 Research Seminar	0-4
PHYS 697 Directed Research	0-3
Electives (Choose courses from list of recommended electives below.)	14-21

PHYS 697 can only satisfy up to nine credit hours of the 15 credit hours for 600-level and above.

PHYS 690 may be repeated for a maximum of four credit hours toward the required 30 credit hours.

PHYS 690 and PHYS 697 may not exceed 15 credit hours of the required 30 credit hours.

Recommended electives

CHEM 510 Atomic and Molecular Structure	3
CHEM 511 Chemical Thermodynamics and Kinetics	3
CHEM 610 Applied Quantum Chemistry	3
CHEM 612 Modern Statistical Mechanics: Fundamentals and	3
Applications	
EGRE 520 Electron Theory of Solids I	3
EGRE 521 Advanced Semiconductor Devices	3
EGRE 623 Nanostructures and Nanodevices	3
EGRM 609 Advanced Characterization of Materials	3
NANO 570 Nanoscale Physics	3
NANO 571 Nanoscale Chemistry	3
NANO 650 Experimental Techniques in Nanoscience I	1.5
NANO 651 Experimental Techniques in Nanoscience II	1.5
NANO 660 Theoretical Studies of Nanostructures	3
PHYS 550 Techniques in Material Research	3
PHYS 571 Theoretical Mechanics	3
PHYS 573 Analytical Methods in Physics	3
PHYS 576 Electromagnetic Theory	3
PHYS 580 Quantum Mechanics	3
PHYS 591 Topics in Physics	1-3
PHYS 641 Solid State Physics	3
PHYS 661 Surface and Materials Physics	3
PHYS 691 Special Topics	3
Total graduate credit hours required (minimum)	30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Physics and Applied Physics, Master of Science (M.S.), accelerated Bachelor of Science in Physics (B.S.) to master's

Graduate program director

Shiv N. Khanna, Ph.D. Commonwealth Professor snkhanna@vcu.edu (804) 828-1818

Additional contact

Robert H. Gowdy, Ph.D. Chair, Department of Physics rgowdy@vcu.edu (804) 828-1818

Program website: physics.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Physics, Bachelor of Science (B.S.) Physics and Applied Physics, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

Students who are enrolled in the B.S. in Physics program may elect to take graduate courses that will count toward the M.S. in Physics and Applied Physics degree. Up to six hours of graduate credit may be earned in this way without any special provision. In order to offer more than six hours of pre-admission graduate credit toward the graduate degree, a student must apply to the Department of Physics graduate admission committee for admission to the accelerated B.S.-M.S. program. Persons applying for admission to this program should (1) submit a curricular plan for completing the bachelor's degree within two years or its part-time equivalent, (2) indicate which graduate courses they intend to offer toward the physics master's degree and (3) have a B average or better. The M.S. degree completion form must include a memo from the Department of Physics graduate admission committee to indicate which graduate courses were taken under the accelerated B.S.-M.S. program.

Refer to the program search function of the online VCU Bulletins for a complete description of program requirements for the bachelor's and master's degree programs.

Department of Psychology

In addition to the Bachelor of Science in Psychology, the Department of Psychology offers instruction in clinical, counseling, health and general psychology leading to the Doctor of Philosophy degree. Students in all doctoral degree programs are educated first as psychologists and then helped to develop competence in a more specialized area relevant to their scholarly and professional objectives. In addition, special training and experience in college teaching is available.

Administration

Wendy Kliewer

Professor and Department Chair

Michael Southam-Gerow

Professor and Director of Graduate Studies

Linda E. Zyzniewski

Associate Professor and Director of Undergraduate Programs

Dorothy E. Fillmore

Associate Director of Academic Operations

psychology.vcu.edu

Admission requirements for doctoral programs

In addition to the general requirements for admission to the graduate programs in the Graduate School (in the Graduate study section of this bulletin), the following requirements represent the minimum acceptable standards for admission:

- Graduation with a bachelor's degree from an accredited college or university, but not necessarily with a major in psychology.
- 18 semester hours of undergraduate course work in psychology is the
 minimal, but not optimal, number of hours for an applicant to be considered
 for admission. Included must be each of the following courses: general
 psychology, statistics and experimental psychology. Exceptionally wellqualified applicants with less than a major in psychology, or applicants whose
 undergraduate work is considered outdated by the admissions committee,
 may be advised to complete some additional undergraduate courses at the
 beginning of their graduate study program.
- · An undergraduate record indicating superior academic potential.
- · Satisfactory performance on the GRE.
- Three letters of recommendation from previous instructors.
- A personal interview may be required at the discretion of the department.

The number of students who can be admitted is limited by the facilities and staff available. All applicants will be notified of the decision made. The screening process may begin as early as Jan. 1. First offers of admission are made by April 1. By June 1, after other offers to alternates have been made and final acceptances by students have been received, admissions may be closed. See the admission requirements summary tables to view admission deadlines for each of the Ph.D. programs: clinical psychology, counseling psychology, general psychology (biopsychology, developmental psychology, social psychology) and health psychology.

Applicants to the general psychology program should specify to which of the three divisions they are applying (i.e., biopsychology, developmental or social).

Transfer credits for graduate work at other institutions will be evaluated after the completion of nine semester hours in the department.

Degree requirements for doctoral programs

The following requirements are in addition to those described for the graduate programs in the Graduate School (the Graduate study section of this bulletin) and the College of Humanities and Sciences section of this bulletin.

All students are required to complete a core curriculum of 15 credits (or its equivalent for students entering with a master's degree).

Students who receive grades of B or better in each of the department core courses are considered to have fulfilled the university requirements of a master's level comprehensive examination and will then officially be considered candidates for the Master of Science degree. Students who receive grades of C or lower in two or more department core courses will have failed the comprehensive examination and will be dismissed automatically from the program. Students who receive a grade of C or lower in one of the department core courses must either (a) satisfactorily complete a re-examination of the material covered in the course within one semester following the receipt of the grade (this re-examination is to be arranged and evaluated by the course instructor), or (b) repeat the course for credit the next time it is offered and receive a grade of B or better. Regardless of which of these approaches is chosen, the students will be given only one opportunity to demonstrate that they have mastered the course material. Students who either fail the re-examination or repeat the course and receive a grade of C or lower will have failed the comprehensive examination and will be dismissed from the program.

Additional courses and training experiences will be determined in consultation with and subject to the approval of the student's faculty adviser and graduate program committee.

Receipt of a grade of C or lower in two courses, or grades of C or lower in more than six credits of psychology courses, constitutes automatic dismissal of a student from the program.

All students are required to complete a master's thesis and to defend it successfully in an oral examination. Ideally, the thesis should be publishable as a piece of research and make a contribution to the field of psychology. Students who have previously completed a master's thesis in psychology at another university may have the thesis requirement waived if the thesis is accepted by their graduate program committee.

The residence requirement for the master's degree is 18 hours, nine in each of two consecutive semesters. Completion of the degree usually requires four semesters. At least six semester credits in PSYC 798 Master's Thesis must be completed, and no more than six can be counted toward the M.S. degree.

Students are obligated to request, in writing from their program committees, continuation of study beyond the master's degree and approval of their doctoral plan of study. Application from a student for continuation beyond the master's level will be evaluated by the appropriate program committee after completion of all requirements for the master's degree. The program committee reviews the student's request and approves or disapproves the request.

The student must pass a written preliminary examination to become a doctoral candidate. Students are required to complete this requirement prior to defense of their dissertations and prior to leaving on internship for students in the clinical and counseling psychology programs.

With the consent of the program committee, doctoral students may design a minor consisting of courses in departments other than psychology or courses in an area of psychology other than the major.

Both the clinical and counseling psychology programs require completion of applied practica and a one-year predoctoral internship approved by the program committee. Research practica are required by all programs. Practicum credit will vary depending on the program. Internship will be one-half credit per semester.

A dissertation requiring the planning, completion and oral defense of an original research project is an integral part of the doctoral program. At least 12 semester credits in PSYC 898 Doctoral Dissertation must be completed, and no more than 12 can be counted toward the Ph.D. degree.

Completion of the entire program usually requires four to six years (including the internship year for students in the clinical and counseling programs). Candidates must complete all requirements for the Ph.D. degree within an eight-year period from the date of admission to the graduate program unless permission is granted for an extension. In some cases, specific programs and divisions may have requirements in addition to those stated here.

A more detailed description of the requirements for each of the graduate programs is included in the Department of Psychology's Graduate Student Handbook, which is provided to each incoming graduate student. Visit the website for more information: www.psychology.vcu.edu.

Honors in psychology

Psychology majors in the baccalaureate program can earn honors in psychology. Any student is eligible to join the program if he or she declares a major in psychology, meets one of the three following entrance requirements and joins the Honors College.

Entering freshmen must have combined SAT scores of at least 1910 and rank in the top 15 percent of their high school graduating class and present an unweighted 3.5 GPA (4.0 scale). Students transferring to VCU must have a 3.5 cumulative GPA in at least 30 college semester hours of credit and have no more than 60 college semester hours of credit. Continuing VCU students must have a 3.5 cumulative GPA and have taken a minimum of 20, but no more than 60, credits at VCU.

Once admitted to the program, the honors student must fulfill three basic program requirements.

First, students must take a minimum of nine credits in psychology courses that are designated as honors sections. Three content courses, which will vary by semester, comprise these nine credits. PSYC 497, 498 and 499 may not be used to fulfill this requirement.

Next, honors students must enroll for a minimum of three credits in PSYC 494 Research Internship in Psychology, no later than the fall semester of their junior year.

Finally, all students must complete PSYC 497 Honors Seminar in the spring semester of their junior year and complete PSYC 498-499 Honors in Psychology in their senior year. Students complete an honors thesis during this three-semester sequence in which they propose, conduct and defend their research.

A student in the program will graduate with honors in psychology if he or she has completed all course requirements with a B or better, has maintained a GPA of 3.5, overall and in psychology, and has completed all other requirements for the Bachelor of Science in Psychology.

Psychology advising (Psyugrad)

Students choose to major in psychology for many reasons. Most often they select the major from a combination of wanting to help other people and wanting to learn the scientific principles of behavior. Students in the program expect to receive career counseling and information on graduate and/or professional school training. The department has developed methods to meet these expectations.

Psyugrad has been established by the department to provide advising to undergraduate majors with educational and career planning. Students are shown how to choose appropriate electives for bachelor's-level careers in mental health services, personnel, management, corrections, rehabilitation, health services, education and laboratory research. In addition, all psychology majors are enrolled in PSYUGRAD, a Blackboard organization. PSYUGRAD provides up-to-date information on research opportunities, jobs, special presentations and advising documents.

The adviser's role is to consult with students about various areas of professional opportunity, explain the role of graduate education and suggest general areas of study outside of the psychology department that might fit the student's interests and goals. Advisers are available on a walk-in basis at the department's Psyugrad Advising Office located at the White House, 806 W. Franklin Street, Room 107. Hours are posted on PSYUGRAD Blackboard.

PSYC 492 Independent Study and PSYC 494 Research Internship in Psychology are two of the upper-level electives specifically designed to enhance the psychology major's career pursuits for either employment or graduate-level training. Both of these courses provide opportunities for direct, practical experience with close supervision. Students may register for one, two or three credits following consultation with a faculty mentor who will supervise the experience. Students are expected to work three hours per week per credit hour for each of these experiences. They may be repeated for up to a total of 12 credits, but with no more than 6 credits of each.

The Department of Psychology offers service-learning courses (PSYC 307/LFSC 307 Community Solutions: Multiple Perspectives; PSYC 493 Fieldwork: Human Services) that involve participation in an organized community service experience. Through classroom discussions and written assignments, students relate theories and research presented in class with community experiences. Through service-learning courses, students:

- Gain an understanding and appreciation of the community and its diverse people
- · Explore an area of study or a career option
- · Critically reflect on their values and responsibilities as citizens

In many cases, a service-learning course will meet the urban experience general education requirement (refer to the Schedule of Classes).

Psychology courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to psychology (PSYC) courses.

Clinical Psychology, Doctor of Philosophy (Ph.D.) with a concentration in behavioral medicine

Program accreditation

American Psychological Association

Graduate program director

Michael A. Southam-Gerow, Ph.D. Associate professor and director of graduate studies masouthamger@vcu.edu (804) 827-0585

Additional contact

Bruce D. Rybarczyk, Ph.D. Director, clinical psychology training program bdrybarczyk@vcu.edu (804) 828-1675

Program website: psychology.vcu.edu/clinical

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Clinical Psychology, Doctor of Philosophy (Ph.D.) with a concentration in clinical child

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Clinical Psychology, Doctor of Philosophy (Ph.D.) with a concentration in behavior medicine			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall	Dec 1	GRE-General

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission.

- Applicants must have graduated with a bachelor's degree from an accredited college or university, but not necessarily with a major in psychology.
- 2. Applicants must present 18 semester hours of undergraduate course work in psychology. This is the minimal, but not optimal, number of hours for an applicant to be considered for admission. Included must be each of the following courses: general psychology, statistics and experimental psychology. Exceptionally well-qualified applicants with less than a major in psychology, or applicants whose undergraduate work is considered outdated by the admissions committee, may be advised to complete some additional undergraduate courses at the beginning of their graduate study program.
- Applicants must present an undergraduate record indicating superior academic potential.
- 4. Students must show proof of satisfactory performance on the GRE.
- 5. Three letters of recommendation from previous instructors are required.
- 6. A personal interview may be required at the discretion of the department

The number of students who can be admitted is limited by the facilities and staff available. All applicants will be notified of the decision made. The screening process may begin as early as Jan. 1. First offers of admission are made by April 1. By June 1, after other offers to alternates have been made and final acceptances by students have been received, admissions may be closed.

Transfer credit hours for graduate work at other institutions will be evaluated after the completion of nine semester hours in the department.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Doctor of Philosophy in Clinical Psychology offered by VCU is accredited by the American Psychological Association. The program emphasizes the scientist-practitioner model and prepares students for research and service in professional psychology, including positions in university academic and medical school departments, counseling centers, mental health agencies and hospitals, physical health facilities, and other organizational settings.

The Center for Psychological Services and Development, a campus-based community service agency operated by the department, provides training

opportunities for graduate students in all departmental programs, including practicum and research training for graduate students in the clinical psychology program. A wide variety of other on- and off-campus practicum placements also are available.

The department maintains laboratory facilities for research in the areas of behavioral assessment, behavioral medicine, developmental, learning, behavioral pharmacology, psychophysiology, psychotherapy process, social perception, social influence and group dynamics. Opportunities for field research also are available in a variety of settings.

Student learning outcomes

- Students will know, integrate and critically evaluate the literature in the breadth of scientific and clinical psychology.
- Students will be able to contribute to the scientific literature and disseminate the information from their contributions.
- Students will know and be able to apply the scientific, methodological and theoretical foundations of practice in the substantive areas of professional psychology.
- Students will know the available empirically supported treatment techniques and be competent in their use.
- Students will know how to operationalize treatment outcome goals and will consistently evaluate treatment outcome with all clinical cases.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research. All work toward the Ph.D. degree must be completed within eight years of the first enrollment.

- Credit hour requirements: Students in the clinical psychology Ph.D. program
 are required to earn a minimum of 87.5 graduate-level credit hours beyond
 the baccalaureate. At least one-half of the credit hours presented for
 graduation must be at the 600 level or higher.
- 2. Grade requirement: Receipt of a grade of C or lower in two courses, or grades of C or lower in more than six credit hours of psychology courses, constitutes automatic dismissal of a student from the program.
- Master's-level candidacy and requirements: All students in the Department of Psychology are required to complete a department core curriculum (13-15 credit hours) or its equivalent for students entering with a master's degree. Students who receive grades of B or better in each of the department core courses are considered to have fulfilled the university requirements of a master's-level comprehensive examination and will then officially be considered candidates for the Master of Science degree. Students who receive grades of C or lower in two or more department core courses will have failed the comprehensive examination and will be dismissed automatically from the program. Students who receive a grade of C or lower in one of the department core courses must either (a) satisfactorily complete a reexamination of the material covered in the course within one semester following the receipt of the grade (this re-examination is to be arranged and evaluated by the course instructor) or (b) repeat the course for credit the next time it is offered and receive a grade of B or better. Regardless of which of these approaches is chosen, the students will be given only one opportunity to demonstrate that they have mastered the course material. Students who either fail the re-examination or repeat the course and receive a grade of C or lower will have failed the comprehensive examination and will be dismissed from the program. Additional courses and training experiences will be determined in consultation with and subject to the approval of the student's faculty adviser and graduate program committee. All students are required to complete a master's thesis and to defend it successfully in an oral examination. Ideally, the thesis should be publishable as a piece of research and make a contribution to the field of psychology. Students who have previously completed a master's thesis in psychology at another university may have the thesis requirement waived if the thesis is accepted by their graduate program committee. The residence requirement for the master's degree is 18 hours, nine in each of two consecutive semesters. Completion of the degree usually requires four semesters. At least six credit hours in PSYC 798 Master's Thesis must be completed, and no more than six can be counted toward the M.S. degree.

4. Doctoral candidacy and requirements: Students are obligated to request, in writing from their program committees, continuation of study beyond the master's degree and approval of their doctoral plan of study. Application from a student for continuation beyond the master's level will be evaluated by the appropriate program committee after completion of all requirements for the master's degree. The program committee reviews the student's request and approves or disapproves the request. The student must pass a written preliminary examination to become a doctoral candidate. Students are required to complete this requirement prior to defense of their dissertations and prior to leaving on internship for students in the clinical and counseling psychology programs. With the consent of the program committee, doctoral students may design a minor consisting of courses in departments other than psychology or courses in an area of psychology other than the major. Both the clinical and counseling psychology programs require completion of applied practica and a one-year predoctoral internship approved by the program committee. Research practica are required by all programs. Practicum credit hours will vary depending on the program. Internship will be one-half credit hour per semester. A dissertation requiring the planning, completion and oral defense of an original research project is an integral part of the doctoral program. At least 12 credit hours in PSYC 898 Doctoral Dissertation must be completed, and no more than 12 can be counted toward the Ph.D. degree. Completion of the entire program usually requires four to six years (including the internship year for students in the clinical and counseling programs). Candidates must complete all requirements for the Ph.D. degree within an eight-year period from the date of admission to the graduate program unless permission is granted for an extension. In some cases, specific programs and divisions may have requirements in addition to those stated here.

A more detailed description of the requirements for each of the graduate programs is included in the Department of Psychology's Graduate Student Handbook, which is provided to each incoming graduate student. Visit the website for more information: psychology.vcu.edu.

Curriculum requirements

*Asterisk indicates required course for M.S. degree (49 credit hours minimum)

Courses	Credit hour
Department core courses	14
PSYC 617 Sensation and Perception* or PSYC 629 Biological	3
Basis of Behavior	
PSYC 619 Learning and Cognition*	3
PSYC 675 Ethical Principles of Psychology*	2
PSYC 680 Statistics in Psychological Research I*	3
PSYC 681 Statistics in Psychological Research II*	3
Required clinical courses	20
PSYC 616 Psychopathology*	3
PSYC 627 Research Methods in Clinical Psychology*	3
PSYC 643 Principles of Psychological Measurement*	2
PSYC 644 Individual Tests of Intelligence*	3
PSYC 645 Assessment of Personality*	3
PSYC 650 Advanced Child Psychopathology*	1
PSYC 652 Child and Adolescent Psychology* or PSYC 667	3
Behavior Therapy	
PSYC 662 Diagnostic and Behavioral Assessment*	2
Research and clinical practica	23
PSYC 690 Research Practicum*	1
PSYC 694 Clinical Practicum* (variable credit course repeated	22
for a maximum of 22 credit hours for Ph.D.; *six credit hours for M.S.)	
Note: Up to six credit hours of PSYC 694 may be waived	
depending on experience and ability.	
Assessment course	3
PSYC 647 Neuropsychological Assessment	3

Therapy/intervention course	3
PSYC 660 Health Psychology	3
Cultural/individual diversity course	3
PSYC 677 Minority Issues in Mental Health	3
Approved internship	1.5
PSYC 696 Internship (0.5 credit hours for three consecutive semesters)	1.5
Thesis/dissertation	18
PSYC 798 M.S. Thesis*	6
PSYC 898 Doctoral Dissertation	12
Required courses for concentration in behavioral medicine	5
PSYC 651 Theories of Counseling and Interviewing*	2
PSYC 660 Health Psychology**	
PSYC 661 Clinical Applications of Health Psychology	3
PSYC 667 Behavior Therapy**	
** PSYC 660 and PSYC 667 should have been taken as choices	
to fulfill requirements above.	

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

90.5

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Clinical Psychology, Doctor of Philosophy (Ph.D.) with a concentration in clinical child

Program accreditation

American Psychological Association

Graduate program director

Michael A. Southam-Gerow, Ph.D.
Associate professor and director of graduate studies masouthamger@vcu.edu
(804) 827-0585

Additional contact

Bruce D. Rybarczyk, Ph.D. Director, clinical psychology training program bdrybarczyk@vcu.edu (804) 828-1675

Program website: psychology.vcu.edu/clinical

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Clinical Psychology, Doctor of Philosophy (Ph.D.) with a concentration in behavioral medicine

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Clinical Psychology, Doctor of Philosophy (Ph.D.) with a concentration in clinical child			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall	Dec 1	GRE-General

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission.

- Applicants must have graduated with a bachelor's degree from an accredited college or university, but not necessarily with a major in psychology.
- 2. Applicants must present 18 semester hours of undergraduate course work in psychology. This is the minimal, but not optimal, number of hours for an applicant to be considered for admission. Included must be each of the following courses: general psychology, statistics and experimental psychology. Exceptionally well-qualified applicants with less than a major in psychology, or applicants whose undergraduate work is considered outdated by the admissions committee, may be advised to complete some additional undergraduate courses at the beginning of their graduate study program.
- Applicants must present an undergraduate record indicating superior academic potential.
- 4. Students must show proof of satisfactory performance on the GRE.
- 5. Three letters of recommendation from previous instructors are required.
- 6. A personal interview may be required at the discretion of the department

The number of students who can be admitted is limited by the facilities and staff available. All applicants will be notified of the decision made. The screening process may begin as early as Jan. 1. First offers of admission are made by April 1. By June 1, after other offers to alternates have been made and final acceptances by students have been received, admissions may be closed.

Transfer credit hours for graduate work at other institutions will be evaluated after the completion of nine semester hours in the department.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Doctor of Philosophy in Clinical Psychology offered by VCU is accredited by the American Psychological Association. The program emphasizes the scientist-practitioner model and prepares students for research and service in professional psychology, including positions in university academic and medical school departments, counseling centers, mental health agencies and hospitals, physical health facilities, and other organizational settings.

The Center for Psychological Services and Development, a campus-based community service agency operated by the department, provides training opportunities for graduate students in all departmental programs, including practicum and research training for graduate students in the clinical psychology program. A wide variety of other on- and off-campus practicum placements also are available.

The department maintains laboratory facilities for research in the areas of behavioral assessment, behavioral medicine, developmental, learning, behavioral pharmacology, psychophysiology, psychotherapy process, social perception, social influence and group dynamics. Opportunities for field research also are available in a variety of settings.

Student learning outcomes

- Students will know, integrate and critically evaluate the literature in the breadth of scientific and clinical psychology.
- Students will be able to contribute to the scientific literature and disseminate the information from their contributions.
- Students will know and be able to apply the scientific, methodological and theoretical foundations of practice in the substantive areas of professional psychology.
- Students will know the available empirically supported treatment techniques and be competent in their use.
- Students will know how to operationalize treatment outcome goals and will consistently evaluate treatment outcome with all clinical cases.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research. All work toward the Ph.D. degree must be completed within eight years of the first enrollment.

- Credit hour requirements: Students in the clinical psychology Ph.D. program
 are required to earn a minimum of 87.5 graduate-level credit hours beyond
 the baccalaureate. At least one-half of the credit hours presented for
 graduation must be at the 600 level or higher.
- Grade requirement: Receipt of a grade of C or lower in two courses, or grades of C or lower in more than six credit hours of psychology courses, constitutes automatic dismissal of a student from the program.
- Master's-level candidacy and requirements: All students in the Department of Psychology are required to complete a department core curriculum (13-15 credit hours) or its equivalent for students entering with a master's degree. Students who receive grades of B or better in each of the department core courses are considered to have fulfilled the university requirements of a master's-level comprehensive examination and will then officially be considered candidates for the Master of Science degree. Students who receive grades of C or lower in two or more department core courses will have failed the comprehensive examination and will be dismissed automatically from the program. Students who receive a grade of C or lower in one of the department core courses must either (a) satisfactorily complete a reexamination of the material covered in the course within one semester following the receipt of the grade (this re-examination is to be arranged and evaluated by the course instructor) or (b) repeat the course for credit the next time it is offered and receive a grade of B or better. Regardless of which of these approaches is chosen, the students will be given only one opportunity to demonstrate that they have mastered the course material. Students who either fail the re-examination or repeat the course and receive a grade of C or lower

will have failed the comprehensive examination and will be dismissed from the program. Additional courses and training experiences will be determined in consultation with and subject to the approval of the student's faculty adviser and graduate program committee. All students are required to complete a master's thesis and to defend it successfully in an oral examination. Ideally, the thesis should be publishable as a piece of research and make a contribution to the field of psychology. Students who have previously completed a master's thesis in psychology at another university may have the thesis requirement waived if the thesis is accepted by their graduate program committee. The residence requirement for the master's degree is 18 hours, nine in each of two consecutive semesters. Completion of the degree usually requires four semesters. At least six credit hours in PSYC 798 Master's Thesis must be completed, and no more than six can be counted toward the M.S. degree.

Doctoral candidacy and requirements: Students are obligated to request, in writing from their program committees, continuation of study beyond the master's degree and approval of their doctoral plan of study. Application from a student for continuation beyond the master's level will be evaluated by the appropriate program committee after completion of all requirements for the master's degree. The program committee reviews the student's request and approves or disapproves the request. The student must pass a written preliminary examination to become a doctoral candidate. Students are required to complete this requirement prior to defense of their dissertations and prior to leaving on internship for students in the clinical and counseling psychology programs. With the consent of the program committee, doctoral students may design a minor consisting of courses in departments other than psychology or courses in an area of psychology other than the major. Both the clinical and counseling psychology programs require completion of applied practica and a one-year predoctoral internship approved by the program committee. Research practica are required by all programs. Practicum credit hours will vary depending on the program. Internship will be one-half credit hour per semester. A dissertation requiring the planning, completion and oral defense of an original research project is an integral part of the doctoral program. At least 12 credit hours in PSYC 898 Doctoral Dissertation must be completed, and no more than 12 can be counted toward the Ph.D. degree. Completion of the entire program usually requires four to six years (including the internship year for students in the clinical and counseling programs). Candidates must complete all requirements for the Ph.D. degree within an eight-year period from the date of admission to the graduate program unless permission is granted for an extension. In some cases, specific programs and divisions may have requirements in addition to

A more detailed description of the requirements for each of the graduate programs is included in the Department of Psychology's Graduate Student Handbook, which is provided to each incoming graduate student. Visit the website for more information: psychology.vcu.edu.

Curriculum requirements

*Asterisk indicates required course for M.S. degree (49 credit hours minimum)

Courses	Credit hour
Department core courses	14
PSYC 617 Sensation and Perception* or PSYC 629 Biological Basis of Behavior	3
PSYC 619 Learning and Cognition*	3
PSYC 675 Ethical Principles of Psychology*	2
PSYC 680 Statistics in Psychological Research I*	3
PSYC 681 Statistics in Psychological Research II*	3
Required clinical courses	20
PSYC 616 Psychopathology*	3
PSYC 627 Research Methods in Clinical Psychology*	3
PSYC 643 Principles of Psychological Measurement*	2
PSYC 644 Individual Tests of Intelligence*	3
PSYC 645 Assessment of Personality*	3
PSYC 650 Advanced Child Psychopathology*	1

PSYC 652 Child and Adolescent Psychotherapy* or PSYC 667 Behavior Therapy	3
PSYC 662 Diagnostic and Behavioral Assessment*	2
Research and clinical practica	23
PSYC 690 Research Practicum*	1
PSYC 694 Clinical Practicum* (variable credit course repeated for a maximum of 22 credit hours for Ph.D.; *six credit hours for M.S.)	22
Note: Up to six credit hours of PSYC 694 may be waived depending on experience and ability.	
Assessment course	3
PSYC 647 Neuropsychological Assessment	3
Therapy/intervention course	3
PSYC 660 Health Psychology	3
Social aspects of behavior course	3
PSYC 630 Social Psychology or PSYC 633 Group Dynamics or another course in social aspects of behavior as approved by graduate program director	3
Cultural/individual diversity course	3
PSYC 677 Minority Issues in Mental Health	3
Approved internship	1.5
PSYC 696 Internship (0.5 credit hours for three consecutive semesters)	1.5
Thesis/dissertation	18
PSYC 798 M.S. Thesis*	6
PSYC 898 Doctoral Dissertation	12
Required courses for concentration in concentration in clinical child	5
PSYC 603 Developmental Processes	3
PSYC 651 Theories of Counseling and Interviewing*	2
Total graduate credit hours required (minimum)	93.5

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Counseling Psychology, Doctor of Philosophy (Ph.D.)

Program accreditation

American Psychological Association

Graduate program director

Michael A. Southam-Gerow, Ph.D. Associate professor and director of graduate studies masouthamger@vcu.edu (804) 827-0585

Additional contact

Everett L. Worthington, Ph.D. Director, counseling psychology training program eworth@vcu.edu (804) 828-1150

Program website: psychology.vcu.edu/counseling

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Counseling Psychology, Doctor of Philosophy (Ph.D.)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall	Dec 1	GRE-General

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission.

- Applicants must have graduated with a bachelor's degree from an accredited college or university, but not necessarily with a major in psychology.
- 2. Applicants must present 18 semester hours of undergraduate course work in psychology. This is the minimal, but not optimal, number of hours for an applicant to be considered for admission. Included must be each of the following courses: general psychology, statistics and experimental psychology. Exceptionally well-qualified applicants with less than a major in psychology, or applicants whose undergraduate work is considered outdated by the admissions committee, may be advised to complete some additional undergraduate courses at the beginning of their graduate study program.
- Applicants must present an undergraduate record indicating superior academic potential.
- 4. Students must show proof of satisfactory performance on the GRE.
- 5. Three letters of recommendation from previous instructors are required.
- 6. A personal interview may be required at the discretion of the department

The number of students who can be admitted is limited by the facilities and staff available. All applicants will be notified of the decision made. The screening process may begin as early as Jan. 1. First offers of admission are made by April 1. By June 1, after other offers to alternates have been made and final acceptances by students have been received, admissions may be closed.

Transfer credit hours for graduate work at other institutions will be evaluated after the completion of nine semester hours in the department.

The finalists for admission will be interviewed on site (or by phone) by counseling faculty.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate

programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Doctor of Philosophy in Counseling Psychology offered at VCU is accredited by the American Psychological Association. The program emphasizes the scientist-practitioner model and prepares students for research and service in professional psychology, including positions in university academic and medical school departments, counseling centers, mental health agencies and hospitals, physical health facilities, and other organizational settings.

The counseling psychology program emphasizes the enhancement of life skills and personal competence. Typical subspecializations include disease prevention and health promotion, career and life planning, work with medical populations, college students, community outreach, interpersonal processes, group counseling, marriage and family counseling, multiculturalism, and sport psychology.

The Center for Psychological Services and Development, a campus-based community service agency operated by the department, provides training opportunities for graduate students in all departmental programs, including practicum and research training for graduate students in the clinical psychology program. A wide variety of other on- and off-campus practicum placements also are available.

The department maintains laboratory facilities for research in the areas of behavioral assessment, behavioral medicine, developmental, learning, behavioral pharmacology, psychophysiology, psychotherapy process, social perception, social influence and group dynamics. Opportunities for field research also are available in a variety of settings.

Student learning outcomes

- Students will gain a thorough grounding in research strategies, theories and content of psychology that provides a foundation for mastering the applied knowledge and skills of the profession.
- Students will demonstrate competence in the provision of cutting-edge empirically informed professional practice, an ability to communicate about clinical case material, and will obtain and complete an APA-approved internship.
- Students will become knowledgeable about the principles of leadership and their own approach and orientation to becoming a leader in counseling psychology.
- 4. Students must demonstrate that they have been exposed to a variety of cultures, have made an effort to become aware of their own culturally based values and attitudes and have developed skills as part of an ongoing commitment to increasing their multicultural competence.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research. All work toward the Ph.D. degree must be completed within eight years of the first enrollment.

Credit hour requirements: Students in the counseling psychology Ph.D.
program are required to earn a minimum of 90.5 graduate-level credit hours
beyond the baccalaureate. At least one-half of the credit hours presented for
graduation must be at the 600 level or higher.

- 2. Grade requirement: Receipt of a grade of C or lower in two courses, or grades of C or lower in more than six credit hours of psychology courses, constitutes automatic dismissal of a student from the program.
- Master's-level candidacy and requirements: All students in the Department of Psychology are required to complete a department core curriculum (14 credit hours) or its equivalent for students entering with a master's degree. Students who receive grades of B or better in each of the department core courses are considered to have fulfilled the university requirements of a master's-level comprehensive examination and will then officially be considered candidates for the Master of Science degree. Students who receive grades of C or lower in two or more department core courses will have failed the comprehensive examination and will be dismissed automatically from the program. Students who receive a grade of C or lower in one of the department core courses must either (a) satisfactorily complete a re-examination of the material covered in the course within one semester following the receipt of the grade (this reexamination is to be arranged and evaluated by the course instructor) or (b) repeat the course for credit the next time it is offered and receive a grade of B or better. Regardless of which of these approaches is chosen, the students will be given only one opportunity to demonstrate that they have mastered the course material. Students who either fail the re-examination or repeat the course and receive a grade of C or lower will have failed the comprehensive examination and will be dismissed from the program. Additional courses and training experiences will be determined in consultation with and subject to the approval of the student's faculty adviser and graduate program committee. All students are required to complete a master's thesis and to defend it successfully in an oral examination. Ideally, the thesis should be publishable as a piece of research and make a contribution to the field of psychology. Students who have previously completed a master's thesis in psychology at another university may have the thesis requirement waived if the thesis is accepted by their graduate program committee. The residence requirement for the master's degree is 18 hours, nine in each of two consecutive semesters. Completion of the degree usually requires four semesters. At least six credit hours in PSYC 798 Master's Thesis must be completed, and no more than six can be counted toward the M.S. degree.
- Doctoral candidacy and requirements: Students are obligated to request, in writing from their program committees, continuation of study beyond the master's degree and approval of their doctoral plan of study. Application from a student for continuation beyond the master's level will be evaluated by the appropriate program committee after completion of all requirements for the master's degree. The program committee reviews the student's request and approves or disapproves the request. The student must pass a written preliminary examination to become a doctoral candidate. Students are required to complete this requirement prior to defense of their dissertations and prior to leaving on internship for students in the clinical and counseling psychology programs. With the consent of the program committee, doctoral students may design a minor consisting of courses in departments other than psychology or courses in an area of psychology other than the major. Both the clinical and counseling psychology programs require completion of applied practica and a one-year predoctoral internship approved by the program committee. Research practica are required by all programs. Practicum credit hours will vary depending on the program. Internship will be one-half credit hour per semester. A dissertation requiring the planning, completion and oral defense of an original research project is an integral part of the doctoral program. At least 12 credit hours in PSYC 898 Doctoral Dissertation must be completed, and no more than 12 can be counted toward the Ph.D. degree. Completion of the entire program usually requires four to six years (including the internship year for students in the clinical and counseling programs). Candidates must complete all requirements for the Ph.D. degree within an eight-year period from the date of admission to the graduate program unless permission is granted for an extension. In some cases, specific programs and divisions may have requirements in addition to those stated here.

A more detailed description of the requirements for each of the graduate programs is included in the Department of Psychology's Graduate Student Handbook, which is provided to each incoming graduate student. Visit the website for more information: psychology.vcu.edu.

Curriculum requirements

*Asterisk indicates required course for M.S. degree (53 credit hours minimum)

Courses	Credit hours
Department core courses	14
PSYC 617 Sensation and Perception* or PSYC 629 Biological Basis of Behavior	3
PSYC 619 Learning and Cognition*	3
PSYC 675 Ethical Principles of Psychology*	2
PSYC 680 Statistics in Psychological Research I*	3
PSYC 681 Statistics in Psychological Research II*	3
Required counseling courses	37
PSYC 608 Research in Counseling Psychology*	3
PSYC 611 Contemporary Developments in Counseling Psychology	3
PSYC 616 Psychopathology*	3
PSYC 623 Counseling Theories and Personality*	3
PSYC 625 Career Development and Occupational Health*	3
PSYC 643 Principles of Psychological Measurement*	2
PSYC 644 Individual Tests of Intelligence*	3
PSYC 645 Assessment of Personality*	3
PSYC 651 Theories of Counseling and Interviewing*	3
PSYC 655 Community Interventions: Development, Implementation and Evaluation	3
PSYC 660 Health Psychology or other course in health psychology as approved by graduate program director	3
PSYC 676 Personal Awareness in Multicultural Counseling*	3
PSYC 695 Practicum in Clinical or Counseling Supervision	2
Research and counseling practica	15
PSYC 690 Research Practicum	3
PSYC 693 Counseling Practicum* (*six credit hours for M.S.)	12
Developmental course	3
PSYC 603 Developmental Processes or PSYC 633 Group Dynamics or other developmental course as approved by graduate program director	3
Social aspects of behavior course	3
PSYC 630 Social Psychology or other social aspects course as approved by graduate program director	3
Approved internship	1.5
PSYC 696 Internship (0.5 credit hours for three consecutive semesters)	1.5
Thesis/dissertation	18
PSYC 798 M.S. Thesis*	6
PSYC 898 Doctoral Dissertation	12
Total graduate credit hours required (minimum)	91.5

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Health Psychology, Doctor of Philosophy (Ph.D.)

Graduate program director

Michael A. Southam-Gerow, Ph.D. Associate professor and director of graduate studies masouthamger@vcu.edu (804) 827-0585

Additional contact

Eric Benotsch, Ph.D. Director, health psychology program ebenotsch@vcu.edu (804) 828-0133

Program website: psychology.vcu.edu/health

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Health Psychology, Doctor of Philosophy (Ph.D.)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall	Jan 10	GRE-General

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Applicants must have graduated with a bachelor's degree from an accredited college or university, but not necessarily with a major in psychology.
- 2. Applicants must present 18 semester hours of undergraduate course work in psychology. This is the minimal, but not optimal, number of hours for an applicant to be considered for admission. Included must be each of the following courses: general psychology, statistics and experimental psychology. Exceptionally well-qualified applicants with less than a major in psychology, or applicants whose undergraduate work is considered outdated by the admissions committee, may be advised to complete some additional undergraduate courses at the beginning of their graduate study program.
- Applicants must present an undergraduate record indicating superior academic potential.
- 4. Students must show proof of satisfactory performance on the GRE.
- 5. Three letters of recommendation from previous instructors are required.
- 6. A personal interview may be required at the discretion of the department

The number of students who can be admitted is limited by the facilities and staff available. All applicants will be notified of the decision made. The screening process may begin as early as Jan. 1. First offers of admission are made by April 1. By June 1, after other offers to alternates have been made and final acceptances by students have been received, admissions may be closed.

Transfer credit hours for graduate work at other institutions will be evaluated after the completion of nine semester hours in the department.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Doctor of Philosophy in Health Psychology offered by VCU is an experimentally oriented program that is designed to train students to contribute to the knowledge of psychological contributions to health and illness via training in basic and clinical research. Students completing the Ph.D. in Health Psychology will not be eligible for licensure. Research in health psychology examines the causes and development of illness, methods to help individuals develop healthy lifestyles to promote good health and prevent illness, the treatment individuals receive for their medical problems, the effectiveness with which individuals cope with and reduce stress and pain, biopsychosocial connections with immune functioning, and factors in the recovery, rehabilitation and psychosocial adjustment of patients with serious health problems. Thus, graduates from the Ph.D. program in Health Psychology are prepared for work in a range of settings including colleges and universities, medical centers, research centers, nonprofit agencies and local, state and national government.

The Center for Psychological Services and Development, a campus-based community service agency operated by the department, provides training opportunities for graduate students in all departmental programs. A wide variety of other on- and off-campus practicum placements also are available.

The department maintains laboratory facilities for research in the areas of behavioral assessment, behavioral medicine, developmental, learning, behavioral pharmacology, psychophysiology, psychotherapy process, social perception, social influence and group dynamics. Opportunities for field research also are available in a variety of settings.

Student learning outcomes

- Students will demonstrate their understanding of the models, theories and processes of health psychology; the biological, cognitive, attitudinal, social and cultural underpinnings of health psychology; primary and secondary prevention of disease in a diverse range of communities; and community applications of health psychology.
- Students will use scientifically sound research methodologies, univariate and multivariate statistics and ethical practices in their conduct of research.
- 3. Students will adhere to the highest standards of ethics in their research, teaching and applied practice. Students will follow standards set by the University and the American Psychological Association.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct

significant research. All work toward the Ph.D. degree must be completed within eight years of the first enrollment.

- Credit hour requirements: Students in the health psychology Ph.D. program
 are required to earn a minimum of 80 graduate-level credit hours beyond the
 baccalaureate. At least one-half of the credit hours presented for graduation
 must be at the 600 level or higher.
- Grade requirement: Receipt of a grade of C or lower in two courses, or grades of C or lower in more than six credit hours of psychology courses, constitutes automatic dismissal of a student from the program.
- Master's-level candidacy and requirements: All students in the Department of Psychology are required to complete a department core curriculum (13-15 credit hours) or its equivalent for students entering with a master's degree. Students who receive grades of B or better in each of the department core courses are considered to have fulfilled the university requirements of a master's-level comprehensive examination and will then officially be considered candidates for the Master of Science degree. Students who receive grades of C or lower in two or more department core courses will have failed the comprehensive examination and will be dismissed automatically from the program. Students who receive a grade of C or lower in one of the department core courses must either (a) satisfactorily complete a reexamination of the material covered in the course within one semester following the receipt of the grade (this re-examination is to be arranged and evaluated by the course instructor) or (b) repeat the course for credit the next time it is offered and receive a grade of B or better. Regardless of which of these approaches is chosen, the students will be given only one opportunity to demonstrate that they have mastered the course material. Students who either fail the re-examination or repeat the course and receive a grade of C or lower will have failed the comprehensive examination and will be dismissed from the program. Additional courses and training experiences will be determined in consultation with and subject to the approval of the student's faculty adviser and graduate program committee. All students are required to complete a master's thesis and to defend it successfully in an oral examination. Ideally, the thesis should be publishable as a piece of research and make a contribution to the field of psychology. Students who have previously completed a master's thesis in psychology at another university may have the thesis requirement waived if the thesis is accepted by their graduate program committee. The residence requirement for the master's degree is 18 hours, nine in each of two consecutive semesters. Completion of the degree usually requires four semesters. At least six credit hours in PSYC 798 Master's Thesis must be completed, and no more than six can be counted toward the M.S. degree.
- Doctoral candidacy and requirements: Students are obligated to request, in writing from their program committees, continuation of study beyond the master's degree and approval of their doctoral plan of study. Application from a student for continuation beyond the master's level will be evaluated by the appropriate program committee after completion of all requirements for the master's degree. The program committee reviews the student's request and approves or disapproves the request. The student must pass a written preliminary examination to become a doctoral candidate. Students are required to complete this requirement prior to defense of their dissertations and prior to leaving on internship for students in the clinical and counseling psychology programs. With the consent of the program committee, doctoral students may design a minor consisting of courses in departments other than psychology or courses in an area of psychology other than the major. Both the clinical and counseling psychology programs require completion of applied practica and a one-year predoctoral internship approved by the program committee. Research practica are required by all programs. Practicum credit hours will vary depending on the program. Internship will be one-half credit hour per semester. A dissertation requiring the planning, completion and oral defense of an original research project is an integral part of the doctoral program. At least 12 credit hours in PSYC 898 Doctoral Dissertation must be completed, and no more than 12 can be counted toward the Ph.D. degree. Completion of the entire program usually requires four to six years (including the internship year for students in the clinical and counseling programs). Candidates must complete all requirements for the Ph.D. degree within an eight-year period from the date of admission to the graduate program unless permission is granted for an extension. In some cases, specific programs and divisions may have requirements in addition to those stated here.

A more detailed description of the requirements for each of the graduate programs is included in the Department of Psychology's Graduate Student Handbook, which is provided to each incoming graduate student. Visit the website for more information: psychology.vcu.edu.

Curriculum requirements

*Asterisk indicates required course for M.S. degree (40 credit hours minimum)

Courses	Credit hours
Department core courses	13-15
PSYC 617 Sensation and Perception* or PSYC 629 Biological Basis of Behavior	3
PSYC 619 Learning and Cognition*	3
PSYC 680* Statistics in Psychological Research I	3
PSYC 681* Statistics in Psychological Research II	3
Responsible conduct of research course: ALHP 708 Ethics and Health Care, OVPR 602 Responsible Scientific Conduct, OVPR 603 Responsible Conduct of Research or PSYC 675 Ethical Principles of Psychology	1-3
Required health courses	12
PSYC 660 Health Psychology*	3
PSYC 679 Culture, Ethnicity and Health*	3
PSYC 691 Special Topics* (research methods in health psychology)	3
Other methods course approved by program director	3
Applied course*	3
PSYC 631 Evaluation Research: Psychological Perspectives or	3
PSYC 655 Community Interventions: Development, Implementation and Evaluation	
Additional training courses (choose two)	6
EPID 603 Public Health Policy and Politics	3
PHTX 548 Drug Dependence	3
PSYC 622 Physiological Correlates of Emotion	3
PSYC 635 Psychology of Health and Health Care in Older Adults	3
PSYC 666 Crisis Intervention: Theory, Research and Practice	3
PSYC 691 Special Topics (child health psychology, cancer prevention and control, occupational health psychology)	3
SBHD 608 Health Communication	3
Independent readings and research* (At least three credit hours of either course required for M.S.; both required for Ph.D.)	6
PSYC 671 Readings and Research	3
PSYC 690 Research Practicum	3
Post-master's course work	12
ALHP 716 Grant Writing and Project Management in Health Related Sciences or PSYC 700 Grant Writing	3
PSYC 603 Developmental Processes (or another course in developmental psychology approved by the program director)	3
PSYC 630 Social Psychology (or another course in social psychology approved by the program director)	3
PSYC 795 Practicum in the Teaching of College Psychology	3
Methodology/statistics course (choose at least one)	3
BIOS 531 Clinical Epidemiology	3
BIOS 571 Clinical Trials	3
BIOS 572 Statistical Analysis of Biomedical Data	3
BIOS 647 Survival Analysis	3
EDUS 651 Topics in Education	3
EPID 571 Principles of Epidemiology	3

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Total graduate credit hours required (minimum)	80
Health	
SBHD 630 Theoretical Foundations of Social & Behavioral	3
SBHD 608 Health Communication	3
SBHD 605 Introduction to Social and Behavioral Health	3
prevention and control, occupational health psychology)	1
PSYC 666 Crisis Intervention: Theory, Research and Practice PSYC 691 Special Topics (child health psychology, cancer	3 1
PSYC 635 Psychology of Health and Health Care in the Elderly PSYC 666 Crisis Intervention: Theory, Research and Practice	3
PSYC 622 Physiological Correlates of Emotion PSYC 625 Psychology of Health and Health Care in the Elderly	3
PHTX 614 Foundation in Psychoneuroimmunology	3
PHTX 548 Drug Dependence	3
Treatment PHTY 548 Drug Dependence	2
IDAS 610 Contemporary Issues in Addiction Prevention and	3
HADM 626 International Health	3
HADM 615 Health Care Politics and Policy	3
Elderly	
GRTY 627 Psychology of Health and Health Care for the	3
GRTY 601 Biological and Physiological Aging	3
EPID 603 Public Health Policy and Politics	3
BIOL 524 Endocrinology	3
ALHP 701 Health Services Delivery Systems	3
Recommended electives	7
PSYC 898 Doctoral Dissertation	12
PSYC 798 M.S. Thesis*	6
Thesis/dissertation	18
•	
Analysis	5
SWKD 704 Multiparadigmatic Qualitative Methods and	3
SOCY/PADM 605 Survey Research Methods	3
SBHD 633 Structural Equation Modeling	3
SBHD 610 Behavioral Measurement	3
PSYC 702 Causal Analysis for Organizational Studies	3
NURS 772 Qualitative Research Design and Analysis	3
MGMT 691 Topics in Management (CARMA)	3
MGMT 643 Applied Multivariate Methods	3
HADM 762 Health Services Research Methods II	3
EPID 606 Epidemiologic Methods	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Psychology, Doctor of Philosophy (Ph.D.) with a concentration in biopsychology

Graduate program director

Michael A. Southam-Gerow, Ph.D. Associate professor and director of graduate studies masouthamger@vcu.edu (804) 827-0585

Additional contact

Joseph H. Porter, Ph.D. Director, biopsychology division jporter@vcu.edu (804) 828-0096

Program website: psychology.vcu.edu/biopsychology

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Psychology, Doctor of Philosophy (Ph.D.) with a concentration in developmental psychology

Psychology, Doctor of Philosophy (Ph.D.) with a concentration in social psychology

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Psychology, Doctor of Philosophy (Ph.D.) with a concentration in biopsychology			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall	Jan 10	GRE-General

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission.

- Applicants must have graduated with a bachelor's degree from an accredited college or university, but not necessarily with a major in psychology.
- 2. Applicants must present 18 semester hours of undergraduate course work in psychology. This is the minimal, but not optimal, number of hours for an applicant to be considered for admission. Included must be each of the following courses: general psychology, statistics and experimental psychology. Exceptionally well-qualified applicants with less than a major in psychology, or applicants whose undergraduate work is considered outdated by the admissions committee, may be advised to complete some additional undergraduate courses at the beginning of their graduate study program.
- Applicants must present an undergraduate record indicating superior academic potential.
- 4. Students must show proof of satisfactory performance on the GRE.
- 5. Three letters of recommendation from previous instructors are required.
- 6. A personal interview may be required at the discretion of the department.

The number of students who can be admitted is limited by the facilities and staff available. All applicants will be notified of the decision made. The screening process may begin as early as Jan. 1. First offers of admission are made by April 1. By June 1, after other offers to alternates have been made and final acceptances by students have been received, admissions may be closed.

Applicants to the psychology doctoral program should specify to which of the three divisions they are applying (i.e., biopsychology, developmental or social).

Transfer credit hours for graduate work at other institutions will be evaluated after the completion of nine semester hours in the department.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Doctor of Philosophy in Psychology offered by VCU prepares students for basic or applied research and includes three specialty areas: biopsychology, developmental psychology and social psychology. The concentration in developmental psychology trains students for work in either college or university academic departments or applied settings. Applied developmentalists work in a variety of settings and programs (violence prevention, community intervention, schools, family service agencies, nonprofit agencies, health care settings, disability agencies) with a variety of human populations (infants and young children, school-age children, adolescents, at-risk youth, incarcerated youth and adults, parents, older adults, persons with disabilities); they do not offer counseling/ therapy services.

The Center for Psychological Services and Development, a campus-based community service agency operated by the department, provides training opportunities for graduate students in all departmental programs, including practicum and research training for graduate students in the clinical psychology program. A wide variety of other on- and off-campus practicum placements also are available.

The department maintains laboratory facilities for research in the areas of behavioral assessment, behavioral medicine, developmental, learning, behavioral pharmacology, psychophysiology, psychotherapy process, social perception, social influence and group dynamics. Opportunities for field research also are available in a variety of settings.

Student learning outcomes

- Students will acquire an accurate, comprehensive and up-to-date understanding of biopsychological concepts, principles and findings in the key domains of the field, including physiology, learning and memory, and current neuroscience principles.
- Students will develop the intellectual skills required to generate theories, do research, communicate ideas and information to others, evaluate conclusions statistically, locate the information needed for these intellectual pursuits and prepare scientific reports.
- 3. Students will strive to expand the conceptual and empirical foundations of the field by conducting original research utilizing sound research methodologies. The results of these studies are presented at scientific conferences and published in scientific journals. This research is, in some cases, supported by extramural grants to biopsychology faculty or students.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research. All work toward the Ph.D. degree must be completed within eight years of the first enrollment.

- Credit hour requirements: Students in the psychology Ph.D. program are required to earn a minimum of 72 graduate-level credit hours beyond the baccalaureate. At least one-half of the credit hours presented for graduation must be at the 600 level or higher.
- Grade requirement: Receipt of a grade of C or lower in two courses, or grades of C or lower in more than six credit hours of psychology courses, constitutes automatic dismissal of a student from the program.
- Master's-level candidacy and requirements: All students in the Department of Psychology are required to complete a department core curriculum (13-15 credit hours) or its equivalent for students entering with a master's degree. Students who receive grades of B or better in each of the department core courses are considered to have fulfilled the university requirements of a master's-level comprehensive examination and will then officially be considered candidates for the Master of Science degree. Students who receive grades of C or lower in two or more department core courses will have failed the comprehensive examination and will be dismissed automatically from the program. Students who receive a grade of C or lower in one of the department core courses must either (a) satisfactorily complete a reexamination of the material covered in the course within one semester following the receipt of the grade (this re-examination is to be arranged and evaluated by the course instructor) or (b) repeat the course for credit the next time it is offered and receive a grade of B or better. Regardless of which of these approaches is chosen, the students will be given only one opportunity to demonstrate that they have mastered the course material. Students who either fail the re-examination or repeat the course and receive a grade of C or lower will have failed the comprehensive examination and will be dismissed from the program. Additional courses and training experiences will be determined in consultation with and subject to the approval of the student's faculty adviser and graduate program committee. All students are required to complete a master's thesis and to defend it successfully in an oral examination. Ideally, the thesis should be publishable as a piece of research and make a contribution to the field of psychology. Students who have previously completed a master's thesis in psychology at another university may have the thesis requirement waived if the thesis is accepted by their graduate program committee. The residence requirement for the master's degree is 18 hours, nine in each of two consecutive semesters. Completion of the degree usually requires four semesters. At least six credit hours in PSYC 798 Master's Thesis must be completed, and no more than six can be counted toward the M.S. degree.
- Doctoral candidacy and requirements: Students are obligated to request, in writing from their program committees, continuation of study beyond the master's degree and approval of their doctoral plan of study. Application from a student for continuation beyond the master's level will be evaluated by the appropriate program committee after completion of all requirements for the master's degree. The program committee reviews the student's request and approves or disapproves the request. The student must pass a written preliminary examination to become a doctoral candidate. Students are required to complete this requirement prior to defense of their dissertations and prior to leaving on internship for students in the clinical and counseling psychology programs. With the consent of the program committee, doctoral students may design a minor consisting of courses in departments other than psychology or courses in an area of psychology other than the major. Both the clinical and counseling psychology programs require completion of applied practica and a one-year predoctoral internship approved by the program committee. Research practica are required by all programs. Practicum credit hours will vary depending on the program. Internship will be one-half credit hour per semester. A dissertation requiring the planning, completion and oral defense of an original research project is an integral part of the doctoral program. At least 12 credit hours in PSYC 898 Doctoral Dissertation must be completed, and no more than 12 can be counted toward the Ph.D. degree. Completion of the entire program usually requires four to six years (including the internship year for students in the clinical and counseling programs). Candidates must complete all requirements for the Ph.D. degree within an eight-year period from the date of admission to the graduate program unless permission is granted for an extension. In some cases, specific programs and divisions may have requirements in addition to those stated here.

A more detailed description of the requirements for each of the graduate programs is included in the Department of Psychology's Graduate Student Handbook, which

is provided to each incoming graduate student. Visit the website for more information: psychology.vcu.edu.

Curriculum requirements

*Asterisk indicates required course for M.S. degree (40 credit hours minimum)

Courses	Credit hours
Department core courses	14
PSYC 617 Sensation and Perception* or PSYC 629 Biological Basis of Behavior	3
PSYC 619 Learning and Cognition*	3
PSYC 675 Ethical Principles of Psychology*	2
PSYC 680 Statistics in Psychological Research I*	3
PSYC 681 Statistics in Psychological Research II*	3
Required psychology courses	9
PSYC/GRTY 602 Psychology of Aging or PSYC 603 Developmental Processes or PSYC 605 Social Development (choose one)	3
PSYC 638 The Evolution of Psychological Systems	3
PSYC 671 Readings and Research* and/or PSYC 690 Research Practicum	3
Thesis/dissertation	18
PSYC 798 M.S. Thesis*	6
PSYC 898 Doctoral Dissertation	12
Required courses for concentration in biopsychology	6
PSYC 617 Sensation and Perception* or PSYC 629 Biological Basis of Behavior (Note: Complete the course not chosen for the departmental core above.)	3
*PSYC 639 Research Methods in Biopsychology	3
Choose three courses from:*	9
PHIS 501 Mammalian Physiology	3
PHTX 632 Neurochemical Pharmacology	3
PHTX 633 Behavioral Pharmacology	3
PSYC 612 Seminar in Motivation	3
PSYC 622 Physiological Correlates of Emotion	3
PSYC 691 Special Topics	1-3
Choose courses from the following recommended electives*	16
PHIS 501 Mammalian Physiology	3
PHTX 632 Neurochemical Pharmacology	3
PHTX 633 Behavioral Pharmacology	3
PHTX 691 Special Topics in Pharmacology	3
PHTX 697 Directed Research in Pharmacology	3
PSYC 612 Seminar in Motivation	3
PSYC 622 Physiological Correlates of Emotion	3
PSYC 630 Social Psychology	3
PSYC 637 Operant Behavior	3
PSYC 639 Research Methods in Biopsychology	3
PSYC 671 Readings and Research	3
PSYC 690 Research Practicum	3
PSYC 691 Special Topics	3
PSYC 700 Grant Writing	3
PSYC 795 Practicum in the Teaching of College Psychology	3
Total number of graduate credit hours required (minimum)	72

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing

master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Psychology, Doctor of Philosophy (Ph.D.) with a concentration in developmental psychology

Graduate program director

Michael A. Southam-Gerow, Ph.D. Associate professor and director of graduate studies masouthamger@vcu.edu (804) 827-0585

Additional contact

Barbara J. Myers, Ph.D. Director, developmental psychology division bmyers@vcu.edu (804) 828-6752

Program website: psychology.vcu.edu/developmental

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Aging Studies, Certificate in (Post-baccalaureate graduate certificate)
Psychology, Doctor of Philosophy (Ph.D.) with a concentration in biopsychology
Psychology, Doctor of Philosophy (Ph.D.) with a concentration in social
psychology

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Psychology, Doctor of Philosophy (Ph.D.) with a concentration in developmental psychology			ntion in developmental
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall	Jan 10	GRE-General

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission.

- Applicants must have graduated with a bachelor's degree from an accredited college or university, but not necessarily with a major in psychology.
- Applicants must present 18 semester hours of undergraduate course work in psychology. This is the minimal, but not optimal, number of hours for an applicant to be considered for admission. Included must be each of the following courses: general psychology, statistics and experimental

psychology. Exceptionally well-qualified applicants with less than a major in psychology, or applicants whose undergraduate work is considered outdated by the admissions committee, may be advised to complete some additional undergraduate courses at the beginning of their graduate study program.

- Applicants must present an undergraduate record indicating superior academic potential.
- 4. Students must show proof of satisfactory performance on the GRE.
- 5. Three letters of recommendation from previous instructors are required.
- 6. A personal interview may be required at the discretion of the department.

The number of students who can be admitted is limited by the facilities and staff available. All applicants will be notified of the decision made. The screening process may begin as early as Jan. 1. First offers of admission are made by April 1. By June 1, after other offers to alternates have been made and final acceptances by students have been received, admissions may be closed.

Applicants to the psychology doctoral program should specify to which of the three divisions they are applying (i.e., biopsychology, developmental or social).

Transfer credit hours for graduate work at other institutions will be evaluated after the completion of nine semester hours in the department.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Doctor of Philosophy in Psychology offered by VCU prepares students for basic or applied research and includes three specialty areas: biopsychology, developmental psychology and social psychology. The concentration in developmental psychology trains students for work in either college or university academic departments or applied settings. Applied developmentalists work in a variety of settings and programs (violence prevention, community intervention, schools, family service agencies, nonprofit agencies, health care settings, disability agencies) with a variety of human populations (infants and young children, school-age children, adolescents, at-risk youth, incarcerated youth and adults, parents, older adults, persons with disabilities); they do not offer counseling/ therapy services.

The Center for Psychological Services and Development, a campus-based community service agency operated by the department, provides training opportunities for graduate students in all departmental programs, including practicum and research training for graduate students in the clinical psychology program. A wide variety of other on- and off-campus practicum placements also are available.

The department maintains laboratory facilities for research in the areas of behavioral assessment, behavioral medicine, developmental, learning, behavioral pharmacology, psychophysiology, psychotherapy process, social perception, social influence and group dynamics. Opportunities for field research also are available in a variety of settings.

Student learning outcomes

- Students will demonstrate their understanding of the models, theories and
 processes of developmental psychology; the biological, cognitive, social and
 cultural underpinnings of human development; processes of normative
 developmental change across the lifespan; atypical development as found in
 psychopathology and disabilities; and community applications of
 developmental science.
- Students will use scientifically sound research methodologies, univariate and multivariate statistics and ethical practices in their conduct of research.
- Students will adhere to the highest standards of ethics in their research, teaching and applied practice. Students will follow standards set by the university, the American Psychological Association and the Society for Research in Child Development.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research. All work toward the Ph.D. degree must be completed within eight years of the first enrollment.

- Credit hour requirements: Students in the psychology Ph.D. program are required to earn a minimum of 72 graduate-level credit hours beyond the baccalaureate. At least one-half of the credit hours presented for graduation must be at the 600 level or higher.
- Grade requirement: Receipt of a grade of C or lower in two courses, or grades of C or lower in more than six credit hours of psychology courses, constitutes automatic dismissal of a student from the program.
- Master's-level candidacy and requirements: All students in the Department of Psychology are required to complete a department core curriculum (13-15 credit hours) or its equivalent for students entering with a master's degree. Students who receive grades of B or better in each of the department core courses are considered to have fulfilled the university requirements of a master's-level comprehensive examination and will then officially be considered candidates for the Master of Science degree. Students who receive grades of C or lower in two or more department core courses will have failed the comprehensive examination and will be dismissed automatically from the program. Students who receive a grade of C or lower in one of the department core courses must either (a) satisfactorily complete a reexamination of the material covered in the course within one semester following the receipt of the grade (this re-examination is to be arranged and evaluated by the course instructor) or (b) repeat the course for credit the next time it is offered and receive a grade of B or better. Regardless of which of these approaches is chosen, the students will be given only one opportunity to demonstrate that they have mastered the course material. Students who either fail the re-examination or repeat the course and receive a grade of C or lower will have failed the comprehensive examination and will be dismissed from the program. Additional courses and training experiences will be determined in consultation with and subject to the approval of the student's faculty adviser and graduate program committee. All students are required to complete a master's thesis and to defend it successfully in an oral examination. Ideally, the thesis should be publishable as a piece of research and make a contribution to the field of psychology. Students who have previously completed a master's thesis in psychology at another university may have the thesis requirement waived if the thesis is accepted by their graduate program committee. The residence requirement for the master's degree is 18 hours, nine in each of two consecutive semesters. Completion of the degree usually requires four semesters. At least six credit hours in PSYC 798 Master's Thesis must be completed, and no more than six can be counted toward the M.S. degree.
- 4. Doctoral candidacy and requirements: Students are obligated to request, in writing from their program committees, continuation of study beyond the master's degree and approval of their doctoral plan of study. Application from a student for continuation beyond the master's level will be evaluated by the appropriate program committee after completion of all requirements for the master's degree. The program committee reviews the student's request and approves or disapproves the request. The student must pass a written preliminary examination to become a doctoral candidate. Students are required to complete this requirement prior to defense of their dissertations and prior to leaving on internship for students in the clinical and counseling

psychology programs. With the consent of the program committee, doctoral students may design a minor consisting of courses in departments other than psychology or courses in an area of psychology other than the major. Both the clinical and counseling psychology programs require completion of applied practica and a one-year predoctoral internship approved by the program committee. Research practica are required by all programs. Practicum credit hours will vary depending on the program. Internship will be one-half credit hour per semester. A dissertation requiring the planning, completion and oral defense of an original research project is an integral part of the doctoral program. At least 12 credit hours in PSYC 898 Doctoral Dissertation must be completed, and no more than 12 can be counted toward the Ph.D. degree. Completion of the entire program usually requires four to six years (including the internship year for students in the clinical and counseling programs). Candidates must complete all requirements for the Ph.D. degree within an eight-year period from the date of admission to the graduate program unless permission is granted for an extension. In some cases, specific programs and divisions may have requirements in addition to those stated here.

A more detailed description of the requirements for each of the graduate programs is included in the Department of Psychology's Graduate Student Handbook, which is provided to each incoming graduate student. Visit the website for more information: psychology.vcu.edu.

Curriculum requirements

*Asterisk indicates required course for M.S. degree (40 credit hours minimum)

Courses	Credit hours
Department core courses	14
PSYC 617 Sensation and Perception* or PSYC 629 Biological Basis of Behavior	3
PSYC 619 Learning and Cognition*	3
PSYC 675 Ethical Principles of Psychology*	2
PSYC 680 Statistics in Psychological Research I*	3
PSYC 681 Statistics in Psychological Research II*	3
Required psychology courses	9
PSYC 603 Developmental Processes	3
PSYC 638 The Evolution of Psychological Systems	3
PSYC 671 Readings and Research* or PSYC 690 Research Practicum	3
Thesis/dissertation	18
PSYC 798 M.S. Thesis*	6
PSYC 898 Doctoral Dissertation	12
Developmental psychology concentration core courses	3
PSYC 636 Research Methods in Developmental Psychology*	3
Age-stage courses* (*three credit hours for M.S.) Choose from:	9
PSYC/GRTY 602 Psychology of Aging	3
PSYC 606 Early and Middle Childhood Development	3
PSYC 614 Infant Growth and Development	3
PSYC 628 Psychology of Adolescence	3
Cultural/individual diversity course	3
PSYC 677 Minority Issues in Mental Health*	3
Applied courses* (*three credit hours for M.S.) Choose from:	6
IDDS 600 Interdisciplinary Studies in Developmental	3
Disabilities: Teamwork in Serving Persons with Developmental Disabilities	
IDDS 691 Special Topics in Developmental Disabilities	3
IDDS 692 Directed Study in Developmental Disabilities	3
PSYC 631 Evaluation Research: Psychological Perspectives	3
PSYC 642/GRTY 642 Practicum in Clinical Geropsychology	3

PSYC 700 Grant Writing	3
PSYC 795 Practicum in the Teaching of College Psychology	3
Psychopathology or disability course Choose from:	3
IDDS 600 Interdisciplinary Studies in Developmental Disabilities: Teamwork in Serving Persons with Developmental Disabilities	3
IDDS 691 Special Topics in Developmental Disabilities	3
IDDS 692 Directed Study in Developmental Disabilities	3
PSYC/GRTY 615 Aging and Mental Disorders	3
PSYC 616 Psychopathology	3
PSYC 650 Advanced Child Psychopathology	3
Methodology/statistics course Choose from:	3
BIOS/STAT 544 Statistical Methods II	3
HADM 762 Health Services Research Methods II	3
NURS 772 Qualitative Research Design and Analysis	4
PSYC/MGMT 702 Causal Analysis for Organizational Studies	3
SCMA 643 Applied Multivariate Methods	3
SOCY/PADM 605 Survey Research Methods	3
Social psychology course	3
PSYC 630 Social Psychology	3
Choose from list of recommended electives below* (*six credit hours for M.S.)	3
GRTY 601 Biological and Physiological Aging	3
GRTY 605 Social Science Research Methods Applied to Gerontology	3
HGEN 620 Principles of Human Behavioral Genetics	3
PSYC 613 Cognitive Development	3
PSYC 635/GRTY 627 Psychology of Health and Health Care in the Elderly	3
PSYC 638 The Evolution of Psychological Systems	3
PSYC/GRTY 641 Survey of Psychological Assessment and Treatment of the Older Adult	3
PSYC 644 Individual Tests of Intelligence	3
PSYC 645 Assessment of Personality	3
PSYC 655 Community Interventions: Development,	3
Implementation and Evaluation	2
PSYC 669 Seminar in Consultation Psychology	3
PSYC 660 Health Psychology PSYC 691 Special Topics (parenting)	3
	-
Total graduate credit hours required (minimum)	74

Note: Students specializing in lifespan development and gerontology must take the following set of gerontology courses in addition to other developmental and core requirements. These courses will result in a Certificate in Aging Studies from the Department of Gerontology.

GRTY 601 Biological and Physiological Aging	3
GRTY/PSYC 602 Psychology of Aging	3
GRTY 605 GRTY 605 Social Science Research Methods	3
Applied to Gerontology	
GRTY 692 Independent Studies	2
Six additional hours of gerontology electives, chosen with	6
adviser	

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's

academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Psychology, Doctor of Philosophy (Ph.D.) with a concentration in social psychology

Graduate program director

Michael A. Southam-Gerow, Ph.D. Associate professor and director of graduate studies masouthamger@vcu.edu (804) 827-0585

Additional contact

Jeff D. Green, Ph.D. Director, social psychology division jdgreen@vcu.edu (804) 828-0336

Program website: psychology.vcu.edu/social

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Psychology, Doctor of Philosophy (Ph.D.) with a concentration in biopsychology Psychology, Doctor of Philosophy (Ph.D.) with a concentration in developmental psychology

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Psychology, Doctor of Philosophy (Ph.D.) with a concentration in social psychology			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall	Dec 15	GRE-General

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission.

- Applicants must have graduated with a bachelor's degree from an accredited college or university, but not necessarily with a major in psychology.
- 2. Applicants must present 18 semester hours of undergraduate course work in psychology. This is the minimal, but not optimal, number of hours for an applicant to be considered for admission. Included must be each of the following courses: general psychology, statistics and experimental psychology. Exceptionally well-qualified applicants with less than a major in psychology, or applicants whose undergraduate work is considered outdated by the admissions committee, may be advised to complete some additional undergraduate courses at the beginning of their graduate study program.

- Applicants must present an undergraduate record indicating superior academic potential.
- 4. Students must show proof of satisfactory performance on the GRE.
- 5. Three letters of recommendation from previous instructors are required.
- 6. A personal interview may be required at the discretion of the department.

The number of students who can be admitted is limited by the facilities and staff available. All applicants will be notified of the decision made. The screening process may begin as early as Jan. 1. First offers of admission are made by April 1. By June 1, after other offers to alternates have been made and final acceptances by students have been received, admissions may be closed.

Applicants to the psychology doctoral program should specify to which of the three divisions they are applying (i.e., biopsychology, developmental or social).

Transfer credit hours for graduate work at other institutions will be evaluated after the completion of nine semester hours in the department.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Doctor of Philosophy in Psychology offered by VCU prepares students for basic or applied research and includes three specialty areas: biopsychology, developmental and social psychology. The concentration in developmental psychology trains students for work in either college or university academic departments or applied settings. Applied developmentalists work in a variety of settings and programs (violence prevention, community intervention, schools, family service agencies, nonprofit agencies, health care settings, disability agencies) with a variety of human populations (infants and young children, school-age children, adolescents, at-risk youth, incarcerated youth and adults, parents, older adults, persons with disabilities); they do not offer counseling/ therapy services.

The Center for Psychological Services and Development, a campus-based community service agency operated by the department, provides training opportunities for graduate students in all departmental programs. A wide variety of other on- and off-campus practicum placements also are available.

The department maintains laboratory facilities for research in the areas of behavioral assessment, behavioral medicine, developmental, learning, behavioral pharmacology, psychophysiology, psychotherapy process, social perception, social influence and group dynamics. Opportunities for field research also are available in a variety of settings.

Student learning outcomes

 Students will achieve competency in their knowledge of all basic areas of the field, including social psychology, psychobiology, learning/cognition and statistics/research.

- Students will have learned all the basic principles, theories and findings of the field of social psychology, including social thought and cognition, group processes, and personality and individual differences.
- Students will have the intellectual skills required to generate theories, do research, communicate ideas and information to others, evaluate conclusions statistically, locate the information needed for these intellectual pursuits and prepare scientific reports.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research. All work toward the Ph.D. degree must be completed within eight years of the first enrollment.

- Credit hour requirements: Students in the psychology Ph.D. program are
 required to earn a minimum of 72 graduate-level credit hours beyond the
 baccalaureate. At least one-half of the credit hours presented for graduation
 must be at the 600 level or higher.
- Grade requirement: Receipt of a grade of C or lower in two courses, or grades
 of C or lower in more than six credit hours of psychology courses, constitutes
 automatic dismissal of a student from the program.
- Master's-level candidacy and requirements: All students in the Department of Psychology are required to complete a department core curriculum (13-15 credit hours) or its equivalent for students entering with a master's degree. Students who receive grades of B or better in each of the department core courses are considered to have fulfilled the university requirements of a master's-level comprehensive examination and will then officially be considered candidates for the Master of Science degree. Students who receive grades of C or lower in two or more department core courses will have failed the comprehensive examination and will be dismissed automatically from the program. Students who receive a grade of C or lower in one of the department core courses must either (a) satisfactorily complete a reexamination of the material covered in the course within one semester following the receipt of the grade (this re-examination is to be arranged and evaluated by the course instructor) or (b) repeat the course for credit the next time it is offered and receive a grade of B or better. Regardless of which of these approaches is chosen, the students will be given only one opportunity to demonstrate that they have mastered the course material. Students who either fail the re-examination or repeat the course and receive a grade of C or lower will have failed the comprehensive examination and will be dismissed from the program. Additional courses and training experiences will be determined in consultation with and subject to the approval of the student's faculty adviser and graduate program committee. All students are required to complete a master's thesis and to defend it successfully in an oral examination. Ideally, the thesis should be publishable as a piece of research and make a contribution to the field of psychology. Students who have previously completed a master's thesis in psychology at another university may have the thesis requirement waived if the thesis is accepted by their graduate program committee. The residence requirement for the master's degree is 18 hours, nine in each of two consecutive semesters. Completion of the degree usually requires four semesters. At least six credit hours in PSYC 798 Master's Thesis must be completed, and no more than six can be counted toward the M.S. degree.
- Doctoral candidacy and requirements: Students are obligated to request, in writing from their program committees, continuation of study beyond the master's degree and approval of their doctoral plan of study. Application from a student for continuation beyond the master's level will be evaluated by the appropriate program committee after completion of all requirements for the master's degree. The program committee reviews the student's request and approves or disapproves the request. The student must pass a written preliminary examination to become a doctoral candidate. Students are required to complete this requirement prior to defense of their dissertations and prior to leaving on internship for students in the clinical and counseling psychology programs. With the consent of the program committee, doctoral students may design a minor consisting of courses in departments other than psychology or courses in an area of psychology other than the major. Both the clinical and counseling psychology programs require completion of applied practica and a one-year predoctoral internship approved by the program committee. Research practica are required by all programs. Practicum credit hours will vary depending on the program. Internship will

be one-half credit hour per semester. A dissertation requiring the planning, completion and oral defense of an original research project is an integral part of the doctoral program. At least 12 credit hours in PSYC 898 Doctoral Dissertation must be completed, and no more than 12 can be counted toward the Ph.D. degree. Completion of the entire program usually requires four to six years (including the internship year for students in the clinical and counseling programs). Candidates must complete all requirements for the Ph.D. degree within an eight-year period from the date of admission to the graduate program unless permission is granted for an extension. In some cases, specific programs and divisions may have requirements in addition to those stated here.

A more detailed description of the requirements for each of the graduate programs is included in the Department of Psychology's Graduate Student Handbook, which is provided to each incoming graduate student. Visit the website for more information: psychology.vcu.edu.

Curriculum requirements

*Asterisk indicates required course for M.S. degree (40 credit hours minimum)

Courses	Credit hours
Department core courses	14
PSYC 617 Sensation and Perception* or PSYC 629 Biological Basis of Behavior	3
PSYC 619 Learning and Cognition*	3
PSYC 675 Ethical Principles of Psychology*	2
PSYC 680 Statistics in Psychological Research I*	3
PSYC 681 Statistics in Psychological Research II*	3
Required psychology courses	9
PSYC/GRTY 602 Psychology of Aging or PSYC 603 Developmental Processes or PSYC 605 Social Development	3
PSYC 638 The Evolution of Psychological Systems	3
PSYC 671 Readings and Research* and/or PSYC 690 Research Practicum	3
Thesis/dissertation	18
PSYC 798 M.S. Thesis*	6
PSYC 898 Doctoral Dissertation	12
Social psychology concentration core courses	6
PSYC 630 Social Psychology	3
PSYC 632 Research Methods in Social Psychology	3
Choose three courses from:	9
PSYC 604 Social Psychology of Business and Industry	3
PSYC 610 Attitude Theory and Research	3
PSYC 633 Group Dynamics	3
PSYC 634 Attribution and Social Cognition	3
Choose courses from recommended concentration electives	16
HGEN 620 Principles of Human Behavioral Genetics	3
MGMT/PSYC 702 Causal Analyses for Organizational Studies	3
PSYC/GRTY 602 Psychology of Aging	3
PSYC 603 Developmental Processes	3
PSYC 604 Social Psychology of Business and Industry	3
PSYC 605 Social Development	3
PSYC 610 Attitude Theory and Research	3
PSYC 613 Cognitive Development	3
PSYC 631 Evaluation Research: Psychological Perspectives	3
PSYC 632 Research Methods in Social Psychology PSYC 633 Group Dynamics	3
PSYC 634 Attribution and Social Cognition	3
PSYC 634 Attribution and Social Cognition PSYC 638 The Evolution of Psychological Systems	3
PSYC 659 Seminar in Consultation Psychology	3
101 C 007 Schima in Consultation 1 Sychology	5

PSYC 660 Health Psychology	3
PSYC 668 Interpersonal Psychotherapy: Social Psychological	3
Analysis	
PSYC 671 Readings and Research	3
PSYC 688 The Self and Identity	3
PSYC 690 Research Practicum	3
PSYC 691 Special Topics	3
PSYC 700 Grant Writing	3
PSYC 795 Practicum in the Teaching of College Psychology	3
SBHD 610 Behavioral Measurement	3
STAT 643 Applied Linear Regression	3
STAT 744 Regression II	3
Total graduate credit hours required (minimum)	72

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of Statistical Sciences and Operations Research

The Department of Statistical Sciences and Operations Research offers programs leading to a Bachelor of Science in Mathematical Sciences, a Master of Science in Mathematical Sciences with a concentration in either operations research or statistics and a Doctor of Philosophy in Systems Modeling and Analysis. The curriculum of both programs is run jointly with the Department of Mathematics and Applied Mathematics.

The department also offers a post-baccalaureate undergraduate certificate in statistics.

Administration

D'Arcy P. Mays

Associate Professor and Department Chair

www.stat.vcu.edu

Statistical sciences and operations research courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to statistical sciences (STAT) courses.

Use this link to see operations research (OPER) courses.

Use this link to see systems modeling and analysis (SYSM) courses.

Mathematical Sciences, Master of Science (M.S.) with a concentration in operations research

Graduate program directors

Jason R.W. Merrick, Ph.D. Associate professor jrmerric@vcu.edu (804) 828-5865

J. Paul Brooks, Ph.D. Associate professor jpbrooks@vcu.edu (804) 828-5853

Program website: stat.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Mathematical Sciences, Master of Science (M.S.) with a concentration in applied mathematics

Mathematical Sciences, Master of Science (M.S.) with a concentration in mathematics

Mathematical Sciences, Master of Science (M.S.) with a concentration in statistics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Mathematical research	Sciences, Master of Sciences	ence (M.S.) with a co	ncentration in operat
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.S.	Fall	Mar 1	GRE-General
			TOEFL
	Spring	Oct 1	(International
			students only)

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Thirty credit hours in undergraduate mathematical sciences, computer science or related areas of which at least 18 credit hours must represent upper-level courses
- 2. Three letters of recommendation pertaining to the student's potential ability as a graduate student in mathematical sciences

Provisional admission may be granted when deficiencies exist. These deficiencies must be removed by the end of the first year of residence, or its part-time equivalent, when the student's application will be re-examined. Courses that are remedial or designed to remove deficiencies will not be accepted for credit hours toward the fulfillment of the course requirements for the master's degree.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty

of the university through their elected representatives to the University Graduate

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Department of Mathematics and Applied Mathematics and the Department of Statistical Sciences and Operations Research jointly offer the M.S. in Mathematical Sciences.

The mission of the Department of Statistical Sciences and Operations Research is to offer a strong undergraduate and graduate education, with an increasing focus on the development of cross-disciplinary efforts that will prepare students for real-world applications and stimulating employment and career opportunities.

The program offers maximum flexibility by allowing students, in consultation with their graduate committees, to design a course of study that will best develop competence in those areas most relevant to their scholarly and professional objectives. Students may obtain a designation on their transcripts indicating that their graduate study has emphasized the mathematics concentration by completing the requirements that are listed here. A student who has not satisfied the requirements for one of the program concentrations offered, but who has otherwise fulfilled all the requirements for a master's degree, will be awarded a degree of Master of Science in Mathematical Sciences without any specialization.

Student learning outcomes

- Students will demonstrate a comprehensive understanding of basic mathematical programming methods, stochastic models and decision analysis.
- Student will be able to obtain, analyze and interpret the data necessary to perform operations research projects.
- Students will be able to solve a wide variety of operations research problems using the software commonly used in industry.
- Students will know how to clearly and concisely present technical information in writing and through oral presentations.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to meet the following requirements.

- Credit hour requirements: Students in the M.S. in Mathematical Sciences
 program are required to earn a minimum of 30 graduate-level credit hours. At
 least one-half of the credit hours presented for graduation must be at the 600
 level or higher.
- Other requirements: All students must pass two comprehensive examinations: foundations of operations research, covering OPER 527 and OPER 528 and methods of operations research, covering OPER 613, OPER 639 and OPER 643. All students will be given two attempts to pass each exam.

Curriculum requirements

Courses	Credit hours
Concentration core courses	18
OPER 527 Optimization I [1]	3
OPER 528 Stochastic Simulation [1]	3
OPER 639 Practical Optimization	3

OPER 643 Decision and Risk Analysis OPER 690 Research and Communications Seminar STAT 613 Stochastic Processes	3 3 3
Additional courses	12
Operations research electives (Choose courses from list 1	6
below.) Operations research and allied fields electives (Choose courses from list 2 below.)	6
Total graduate credit hours required (minimum)	30
[1] If a student previously received credit hours for OPER 527 and/or OPER 528 or their equivalents, then one or two other operations research courses must be taken in their place.	
List 1: recommended electives in operations research	
OPER 627 Optimization II	3
OPER/STAT 636 Machine Learning Algorithms	3
OPER 641 Stochastic Simulation and Monte Carlo Methods	3
OPER 643 Decision and Risk Analysis OPER 645 Queuing Theory	3
OPER 647 Multiobjective Decision Analysis	3
OPER 648 Systems Reliability Analysis	3
OPER 691 Special Topics in Operations Research	1-3
OPER 696 Applied Project	1-3
OPER 697 Directed Research	1-3
OPER 698 Thesis	1-3
OPER 731 Discrete Optimization	3
OPER 732 Optimization Under Uncertainty OPER/STAT 736 Mathematics of Knowledge and Search	3
Engines	5
OPER 741 Advanced Stochastic Simulation	3
OPER 743 Decision Analysis II	3
OPER 791 Special Topics in Operations Research	1-3
List 2: recommended electives in operations research and	
allied fields MATH 601 Abstract Algebra I	3
MATH 602 Abstract Algebra II	3
MATH 603 Advanced Probability Theory	3
MATH 604 Advanced Probability Theory	3
MATH 607 Measure and Integration Theory	3
MATH 608 Real Analysis II	3
MATH 610 Advanced Linear Algebra	3
MATH 615 Numerical Analysis	3
MATH 620 Theory of Partial Differential Equations	3
MATH 632 Ordinary Differential Equations II MATH 633 Asymptotic and Perturbation Methods	3
MATH 634 Partial Differential Equations	3
MATH 640 Mathematical Biology I	3
MATH 655 Dynamics and Multivariable Control II	3
MATH 691 Special Topics in Mathematics	1-3
MATH 707 Functional Analysis I	3
MATH 711 Complex Analysis I	3
MATH 712 Complex Analysis II MATH 715 Numerical Solutions for Differential Equations	3
MATH 715 Numerical Solutions for Differential Equations MATH 719 Operational Methods	3
MATH 719 Operational Methods MATH 721 Boundary Value Problems	3
MATH 732 Ordinary Differential Equations III	3
MATH 740 Mathematical Biology II	3
MATH 750 Combinatorics I	3
MATH 751 Combinatorics II	3

MATH 756 Graph Theory I	3
MATH 757 Graph Theory II	3
MATH 759 Graph Enumeration	3
MATH 769 Special Topics in Mathematical Life Sciences	3
MATH 770 Fourier Analysis	3
MATH 787 Special Topics in Discrete Mathematics	3
STAT 691 Special Topics in Statistics	1-3
STAT 697 Directed Research	1-3
STAT 698 Thesis	1-3
STAT/OPER 736 Mathematics of Knowledge and Search	3
Engines	
STAT 742 Design and Analysis of Experiments II	3
STAT 744 Regression II	3
STAT 745 Advanced Bayesian Statistics	3
STAT 791 Special Topics in Statistics	1-3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Mathematical Sciences, Master of Science (M.S.) with a concentration in statistics

Graduate program director

David J. Edwards, Ph.D.

Graduate coordinator, concentration in statistics

dedwards7@vcu.edu

(804) 828-2936

Additional contact

QiQi Lu, Ph.D.

Graduate admissions, concentration in statistics

qlu2@vcu.edu

(804) 828-1304

Program website: stat.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Mathematical Sciences, Master of Science (M.S.) with a concentration in applied mathematics

Mathematical Sciences, Master of Science (M.S.) with a concentration in mathematics

Mathematical Sciences, Master of Science (M.S.) with a concentration in operations research

Apply online at graduate.admissions.vcu.edu.

Admission requirements

ciences, Master of Sciences	ence (M.S.) with a co	ncentration in statistics
Semester(s) of entry:	Deadline dates:	Test requirements:
Fall	Mar 1	GRE–General TOEFL
Spring	Oct 1	(International students only)
	Semester(s) of entry: Fall	of entry: dates: Fall Mar 1

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Thirty credit hours in undergraduate mathematical sciences, computer science or related areas of which at least 18 credit hours must represent upper-level courses.
- 2. Three letters of recommendation pertaining to the student's potential ability as a graduate student in mathematical sciences

Provisional admission may be granted when deficiencies exist. These deficiencies must be removed by the end of the first year of residence, or its part-time equivalent, when the student's application will be re-examined. Courses that are remedial or designed to remove deficiencies will not be accepted for credit hours toward the fulfillment of the course requirements for the master's degree.

Program goal

The Department of Mathematics and Applied Mathematics and the Department of Statistical Sciences and Operations Research jointly offer the M.S. in Mathematical Sciences.

The mission of the Department of Statistical Sciences and Operations Research is to offer a strong undergraduate and graduate education, with an increasing focus on the development of cross-disciplinary efforts that will prepare students for real-world applications and stimulating employment and career opportunities.

The program offers maximum flexibility by allowing students, in consultation with their graduate committees, to design a course of study that will best develop competence in those areas most relevant to their scholarly and professional objectives. Students may obtain a designation on their transcripts indicating that their graduate study has emphasized the mathematics concentration by completing the requirements that are listed here. A student who has not satisfied the requirements for one of the program concentrations offered, but who has otherwise fulfilled all the requirements for a master's degree, will be awarded a degree of Master of Science in Mathematical Sciences without any specialization.

Student learning outcomes

- Students will demonstrate a comprehensive understanding of basic statistical concepts, probability and interference, general linear modeling, calculus, and linear algebra.
- Students will know how to select appropriate samples and conduct appropriate experimental data collection methods.
- Students will be able to perform appropriate analysis of data, including knowledge of the assumptions associated with the procedures and how to determine the appropriate procedure to use.
- Students will be able to use statistical software packages to solve various problems.
- Students will know how to clearly and concisely present technical information in writing and through oral presentations.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to meet the following requirements.

- Credit hour requirements: Students in the M.S. in Mathematical Sciences
 program are required to earn a minimum of 30 graduate-level credit hours. At
 least one-half of the credit hours presented for graduation must be at the 600
 level or higher.
- Other requirements: All students must pass two comprehensive examinations: statistical theory (covering STAT 513 and 514) and statistical application (covering STAT 546, 642 and 643). All students will be given two attempts to pass each exam.

Curriculum requirements

Courses	Credit hours
Concentration core courses	18
STAT/BIOS 513 Mathematical Statistics I [1]	3
STAT/BIOS 514 Mathematical Statistics II [1]	3
STAT 546 Linear Models	3
STAT 642 Design and Analysis of Experiments I	3
STAT 643 Applied Linear Regression	3
STAT 690 Research and Communications Seminar	3
Additional courses	
Statistics electives (Choose courses from list 1 below.)	6
Statistics and allied fields electives (Choose courses from list 2 below.)	6
Total graduate credit hours required (minimum)	30

[1] If student previously received credit for STAT/BIOS 513 and/or STAT/BIOS 514 or their equivalents, then one or two other statistics courses must be taken in their place.

List 1: recommended electives in statistics STAT 613 Stochastic Processes

STAT 613 Stochastic Processes	3
STAT 623 Discrete Multivariate Analysis	3
STAT/OPER 636 Machine Learning Algorithms	3
STAT 645 Bayesian Decision Theory	3
STAT/OPER 648 Systems Reliability Analysis	3
STAT/OPER 649 Statistical Quality Control	3
STAT/BIOS 650 Design and Analysis of Response Surface	3
Experiments	
STAT 675 Time Series Analysis I	3
STAT 691 Special Topics in Statistics [2]	1-3
STAT/OPER 696 Applied Project	1-3
STAT 698 Thesis	1-3
STAT/OPER 736 Mathematics of Knowledge and Search	3
Engines	
STAT 742 Design and Analysis of Experiments II	3
STAT 744 Regression II	3
STAT 745 Advanced Bayesian Statistics	3
STAT 791 Special Topics in Statistics [2]	1-3

List 2: recommended electives in statistics and allied fields

MATH 601 Abstract Algebra I	3
MATH 602 Abstract Algebra II	3
MATH 603 Advanced Probability Theory	3
MATH 604 Advanced Probability Theory	3
MATH 607 Measure and Integration Theory	3
MATH 608 Real Analysis II	3
MATH 610 Advanced Linear Algebra	3
MATH 615 Numerical Analysis	3
MATH 620 Theory of Partial Differential Equations	3
MATH 632 Ordinary Differential Equations II	3
MATH 633 Asymptotic and Perturbation Methods	3

MATH 634 Partial Differential Equations	3
MATH 640 Mathematical Biology I	3
	-
MATH 655 Dynamics and Multivariable Control II	3
MATH 691 Special Topics in Mathematics	1-3
MATH 707 Functional Analysis I	3
MATH 711 Complex Analysis I	3
MATH 712 Complex Analysis II	3
MATH 715 Numerical Solutions for Differential Equations	3
MATH 719 Operational Methods	3
MATH 721 Boundary Value Problems	3
•	
MATH 732 Ordinary Differential Equations III	3
MATH 740 Mathematical Biology II	3
MATH 750 Combinatorics I	2
MATH /30 Combinatories I	3
MATH 751 Combinatorics II	3
MATH 756 County Thomas I	3
MATH 756 Graph Theory I	3
MATH 757 Graph Theory II	3
	3
MATH 759 Graph Enumeration	3
MATH 769 Special Topics in Mathematical Life Sciences	3
MATH 770 Fourier Analysis	3
•	3
MATH 787 Special Topics in Discrete Mathematics	3
ODED MATH 520 Come Theory and Linear Programming	2
OPER/MATH 520 Game Theory and Linear Programming	3
OPER 627 Optimization II	3
1	3
OPER 635 Network Models and Graph Theory	3
OPER/STAT 636 Machine Learning Algorithms	3
OPER 641 Stochastic Simulation and Monte Carlo Methods	3
	3
OPER 643 Decision and Risk Analysis	3
OPER 645 Queuing Theory	3
OPER 647 Multiobjective Decision Analysis	3
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OPER/STAT 648 Systems Reliability Analysis	3
OPER/STAT 649 Statistical Quality Control	3
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OPER 691 Special Topics in Operations Research	1-3
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OPER/STAT 696 Applied Project	1-3
OPER/STAT 696 Applied Project OPER 697 Directed Research	
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OPER/STAT 696 Applied Project OPER 697 Directed Research OPER 698 Thesis	1-3 1-3 1-3
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[2] Use of STAT 691 or 791 to meet this requirement must be approved by the department and the graduate affairs committee of the department at the time the course is scheduled.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements





2014-15 Graduate and Professional Programs Bulletin

School of Allied Health Professions

The School of Allied Health Professions was established on Jan. 1, 1969, to provide an administrative structure for existing educational programs in allied health disciplines and to direct the development of new programs in response to the growing need for allied health manpower. At the outset, the school incorporated existing educational programs for hospital administration, medical technology, physical therapy and radiologic technology and X-ray technicians.

In the years since its establishment, the school has grown significantly — developing unique, cutting-edge curricula and degree offerings in both traditional and nontraditional formats — to meet the increasing demand for allied health teachers, researchers and practitioners. Considered a leader in distance education, VCU's School of Allied Health Professions offers the only interdisciplinary, Internet-based doctoral program in allied health in the country: the Ph.D. in Health Related Sciences. The school currently incorporates nine departments and offers programs at the baccalaureate, certificate, master's, doctoral and professional levels.

Administration

1200 East Broad Street P.O. Box 980233 Richmond, Virginia 23298-0233 (804) 828-7247 Fax: (804) 828-8656 www.sahp.vcu.edu

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Assistant Dean

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Assistant Dean for Research

Debra A. Ropelewski

Assistant Dean for Fiscal Affairs

Jessica F. Gurganus

Assistant Dean for Advancement

Jeffrey R. Lodge

Director of Information Systems

Monica White

Director of Student Services

Philosophy

The faculty of the school is committed to offering, through the establishment and maintenance of rigorous standards of excellence, educational programs that will prepare students for professional careers in the allied health disciplines. Development of professional attitudes, emotional maturity and ethical behavior of students is a vital component of the educational process. It is essential that students gain a deep respect for the dignity of human beings and the inherent rights of patients and others who receive services. The programs are designed to include not only the development of skills to assure excellence in quality of health care, but also factual knowledge and experiences that will provide the basis for continuing intellectual and professional growth.

Community services of the school and faculty include continuing education, consultative resources and participation in all pertinent areas of health care. An integral part of these efforts is to stimulate and sponsor research activities in the allied health disciplines represented within the school and to encourage interdisciplinary research.

Accreditation

The School of Allied Health Professions is an institutional member of the American Society of Allied Health Professions and the Virginia Association of Allied Health Professions. All of its programs are approved or accredited by the appropriate national professional or educational organizations.

Clinical laboratory sciences (bachelor's degree)

National Accrediting Agency for Clinical Laboratory Sciences 5600 N. River Road, Suite 720, Rosemont, IL 60018-5519; (847) 939-3597, (773)

714-8880 or (773) 714-8886 (fax); infor@naacls.org; www.naacls.org. Upon graduation the student is eligible to take the national examination for MLS given by the Board of Certification of the American Society for Clinical Pathology.

Health administration (master's and executive master's degrees)

Commission on Accreditation of Healthcare Management Education

Nuclear medicine technology (bachelor's degree in Clinical Radiation Sciences)

Joint Review Committee on Educational Programs in Nuclear Medicine Technology

Nurse anesthesia (master's, doctorate)

Council on Accreditation of Nurse Anesthesia Educational Programs (COA, 222 South Prospect Avenue, Park Ridge, Illinois, 847-692-7050).

The COA is recognized by the U.S. Department of Education and the Council on Higher Education Accreditation to accredit programs of nurse anesthesia at the master's, post-master's and doctoral levels.

Graduates of the master's program are eligible to take the examination for certification conducted by the Council on Certification of Nurse Anesthetists.

Occupational therapy (master's degree)

Accreditation Council for Occupational Therapy Education

Patient counseling (certificate)

Association for Clinical Pastoral Education

Physical therapy (D.P.T.)

Commission on Accreditation in Physical Therapy Education, American Physical Therapy Association

Radiation therapy technology (bachelor's degree in Clinical Radiation Sciences)

Joint Review Committee on Education in Radiologic Technology

Radiography (bachelor's degree in Clinical Radiation Sciences)

Joint Review Committee on Education in Radiologic Technology

Rehabilitation counseling (master's degree)

Council on Rehabilitation Education

Programs

Both entry- and advanced-level undergraduate, graduate, professional and certificate programs are offered by the School of Allied Health Professions. University and accreditation requirements for the individual programs guide the establishment of general admission prerequisites and course and degree requirements. Regulations and procedures for each program are outlined in these bulletins and are intended to ensure the selection of applicants whose motivation, ability, character and health status qualify them to pursue their program of study successfully.

Programs currently offered by this school and the degrees conferred on their graduates are:

School of Allied Health Professions

· Ph.D. in Health Related Sciences

Department of Clinical Laboratory Sciences

- · Bachelor of Science
- · Master of Science

Department of Gerontology

- · Post-baccalaureate graduate certificate in aging studies
- Post-baccalaureate graduate certificate in aging studies and Master of Social Work offered jointly with the VCU School of Social Work)
- · Master of Science

Department of Health Administration

- · Master of Health Administration
- Master of Health Administration and Doctor of Medicine (offered jointly with the VCU School of Medicine)
- Master of Health Administration and Juris Doctor (offered jointly by the T. C. Williams School of Law at the University of Richmond and the Washington and Lee University School of Law)

- Master of Science in Health Administration (Professional M.S.H.A. Program

 Online)
- · Ph.D. in Health Services Organization and Research

Department of Nurse Anesthesia

- · Doctor of Nurse Anesthesia Practice
- · Master of Science in Nurse Anesthesia

Department of Occupational Therapy

- Master of Science in Occupational Therapy
- · Master of Science
- · Occupational Therapy Doctorate

Program in Patient Counseling

- · Post-baccalaureate graduate certificate in patient counseling
- · Master of Science
- Master of Science and Master of Divinity (offered jointly by the School of Theology at Virginia Union University and the Baptist Theological Seminary)

Department of Physical Therapy

- · Doctor of Physical Therapy
- Tracks in physical therapy in the Ph.D. programs offered in Anatomy and Neurobiology or Physiology in the VCU School of Medicine
- · Ph.D. in Rehabilitation and Movement Science

Department of Radiation Sciences

· Bachelor of Science

Department of Rehabilitation Counseling

- · Master of Science
- Master of Science in Rehabilitation Counseling and certificate in aging studies
- Post-master's certificate in professional counseling

Licensure/certification

Graduates of most of the programs offered in the School of Allied Health Professions are required or eligible to take national and/or state certification or licensure examinations. Requirements of licensing and certifying agencies vary. Some licensure and certification agencies consider individuals convicted of a felony ineligible for licensure or certification. For information, prospective students should contact the licensure or certification agency for the specific allied health discipline.

Attendance regulations

The faculty considers attendance at lectures, laboratories and other functions a requisite to the successful acquisition of the knowledge and skills required of the professional. Hence, the faculty cannot condone absence without good reason from any regularly scheduled educational experience. At the beginning of each course, instructors relate to their classes the policy of the department concerning the attendance regulations for that semester. The nature of make-up work in the event of absence will be the prerogative of the instructor.

Student performance and behavior

The goals and objectives of the School of Allied Health Professions and its component departments and programs relate to the education of persons preparing for professional careers in the allied health disciplines. An integral requisite of students and practitioners is an undeviating acceptance of a professional attitude and pride that will motivate them to adhere to a code of professional ethics and to develop fully their competencies for practice.

The suitability of student performance and behavior relating to these professions and to the consumers of health care is a paramount concern of the administration and faculty of this school. To assure a quality of educational and clinical preparation for its graduates, the following statement is promulgated:

If, in the judgment of the faculty and administration of the School of Allied Health Professions, a student is not considered suitable for emotional, professional or related reasons, the student's academic status may be appropriately altered.

If any questions arise regarding the standards of performance or behavior, it is the responsibility of students to apprise themselves of acceptable character and conduct requirements prior to matriculation in the designated department or program.

Standards of professional behavior

These standards describe behaviors expected from the faculty and students of the School of Allied Health Professions. They are in addition to those standards of behavior and ethical conduct required by the school's departments and professional organizations. They are supplemental to the university statement regarding conduct in the classroom.

- Recognize one's position as a role model of your profession for other members of the health care team.
- Carry out academic, clinical and research responsibilities in a conscientious manner, making every effort to exceed expectations and demonstrating a commitment to lifelong learning.
- Treat patients, faculty and students with respect, demonstrating sensitivity to diversity regarding ethnicity, culture, age, gender, disability, social and economic status, sexual orientation, etc., without discrimination, bias or harassment
- · Maintain patient/client confidentiality.
- Respect the privacy of all members of the campus community and avoid promoting gossip and rumor.
- Interact with all members of the health care team in a collaborative and supportive fashion, with respect and recognition of the roles played by each individual.
- Provide help or seek assistance for any member of the health care team who
 is recognized as impaired in his/her ability to perform his/her professional
 obligations.
- Be mindful of the limits of one's knowledge and abilities and seek help from others whenever appropriate.
- Abide by accepted ethical standards in the scholarship, research and practice of patient/client care.
- Abide by the guidelines of the VCU Honor System.

Financial aid

Financial aid is available for all students meeting the criteria for financial assistance. For details of the programs available contact the Financial Aid Office, P.O. Box 980244, Richmond, VA 23298-0244 or telephone (804) 828-9800.

The school and departments also offer financial awards, honors and scholarships. Details may be found on the school's and individual departments' Web sites at www.sahp.vcu.edu.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in clinical laboratory sciences

Graduate program director

Paula K. Kupstas, Ph.D. Associate professor and director pkupstas@vcu.edu (804) 828-1914

Additional contact

Monica L. White Program coordinator mlwhite1@vcu.edu (804) 828-3273

Program website:sahp.vcu.edu/phd

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in gerontology

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in health care outcomes research

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in nurse anesthesia

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in occupational therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in patient counseling

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in physical therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in radiation sciences

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in rehabilitation leadership

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in clinical laboratory sciences			
Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE or MAT
	Fall (begins end of Jun)	Mar 15	Tests must have been
	Juli)		taken within the past five years.
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Special requirements:

When applicable, applicants must have a minimum Test of English as a Foreign Language score of 600. The Ph.D. program in health related sciences utilizes two six-month semesters per year (January through June and July through December), which include both on- and off-campus components.

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following criteria:

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- 2. Have GRE (verbal, quantitative and analytic writing) or MAT scores from within the past five years
- 3. Have completed a graduate course in statistics with a minimum grade of B
- 4. Demonstrate a record of professional competency and success
- Articulate clear professional and educational goals and written communication skills through the submission of a written essay
- Have any additional qualifications/certifications of the individual concentrations

Prior to reviewing an application for admission, the program must receive:

- 1. A completed application form from the applicant, including:
 - a. Three letters of recommendation, two of which preferably are from sources qualified to assess the candidate's academic potential
 - b. A written essay that discusses career goals and the manner in which this doctoral program will enhance those goals and what the applicant expects to contribute to this program
 - c. A curriculum vitae
- Official transcripts indicating completion of baccalaureate and master's degrees (or equivalent) from an accredited college or university
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Incomplete packages may not be reviewed. Materials are sent to the Graduate Admissions office for processing and then forwarded to the School of Allied Health Professions. Once received in the school, the application is reviewed for completeness. Applicants with incomplete files will be contacted regarding the missing materials. Incomplete files will be held in the director's office until all materials are received.

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The DPAC will meet to select and recommend the incoming class. The director and the dean of the School of Allied Health Professions are responsible for the final decision.

Applicants will be notified by the Graduate Admissions office regarding the admission decision and of the deadline for their acceptance of the offer and holding fee.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program mission/purpose

The program will provide experienced health professionals with advanced knowledge and skills so that they may assume positions in teaching, research and administration upon graduation. It offers a curriculum with an interdisciplinary core of courses with concentrations in clinical laboratory sciences, gerontology, health care outcomes research, nurse anesthesia, occupational therapy, patient counseling, physical therapy, radiation sciences and rehabilitation leadership. The program emphasizes use of distance-learning technologies combined with traditional didactic methods. The curriculum is relevant, timely and meaningful to a multidisciplinary cohort of students.

Program goals

- The program will provide students with the ability to understand and conduct research in health-related sciences.
- The program will provide the student with the ability to analyze alternatives and develop responses in their disciplines to address the current and future challenges in health care.
- The program will provide students with the skills to educate health professionals in their discipline using current principles of teaching and curriculum development.

Student learning outcomes

Students completing this doctoral program will:

- Demonstrate the ability to conduct research, understand issues, design and execute research plans, analyze research results, and present conclusions in the area of interdisciplinary health care using the appropriate methods
- 2. Demonstrate an in-depth knowledge in the area of specialization
- 3. Exhibit competency in translating research knowledge and principles into applied practice perspectives and skills

- 4. Display educational expertise in current principles and content of the allied health sciences and teach in the area of interdisciplinary health care practice
- Display the ability to examine current issues and future changes in the health care environment from an interdisciplinary perspective
- Exhibit knowledge and understanding of professional and ethical responsibility and conduct in the allied health professions
- Demonstrate knowledge and understanding of the importance of cultural diversity in the delivery of health care and the formulation of health policy

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must successfully complete a total of 51 credit hours (18 credit hours of common interdisciplinary core courses, 12 credit hours of research methods core courses, nine credit hours of concentration courses and 12 credit hours of dissertation research), two comprehensive examinations, a research proposal defense and the final dissertation defense.

Continuation requirements

After admission to the Ph.D. program, the student must maintain a minimum cumulative GPA of 3.0 in all of the course work completed at VCU. A student who falls below that minimum will have one semester to remedy the deficiency. Even with an overall minimum GPA of 3.0, a student may earn no more than two (six credit hours) grades of C. Students who receive a grade of D or F will be reviewed for continuation in the program by the department of their concentrations.

Students are expected to maintain continuous enrollment while in the program. Following the completion of the core course work, students must register for at least one credit hour each fall and spring semester for continuation in the program. A student who fails to register must have advance approval to do so or will be dropped automatically from the program and must reapply for reinstatement. The maximum time to complete all of the requirements for the degree is eight calendar years from the date of entry into the program.

Course transfer or waiver

A maximum of 25 percent of the course work other than research may be transferred from another VCU program or outside institution and applied toward the Ph.D. course requirements. Transfer and waiver credit is given at the discretion of the program director after consultation with appropriate faculty members, subject to university approval. Courses taken as requirements for other degrees are not transferable. A waiver may be warranted if an equivalent course was taken. However, another course must be substituted for the waived course in order to fulfill the requisite 51 credit hours needed for degree completion.

Comprehensive examination

The purpose of the comprehensive examination is to provide a vehicle through which students can demonstrate the ability to integrate their educational experiences by adequately addressing complex questions pertinent to the current and developing knowledge of the allied health fields. Students are eligible to take each of the two comprehensive examinations upon successful completion of the appropriate core course work. The core exam must be taken within six months of completing the methods exam.

Two written examinations will be administered, one for the common interdisciplinary core and one for the research methods core. A three-member graduate faculty committee will develop and administer each exam. This committee will be made up of two members of the core advisory committee and one member appointed by the program director. Each exam will be offered once in the fall semester and once in the spring semester. Prior to completion of the semester in which students become eligible to take each exam, they must submit a formal statement of intent to the program coordinator.

Students who receive a failing grade on the initial attempt will have one opportunity to repeat each comprehensive examination. Failure to pass an exam on the second attempt will result in dismissal from the program.

The proposed curriculum is designed to take four years to complete. Students spend the first two and one-half years (six-month-long semesters) completing course work. The final year and one-half is spent developing the doctoral dissertation. Research components are present in each year of the program, and a research emphasis is present throughout the entire curriculum. Students are required to designate the area of intended research in their concentration areas in the first year.

Each of the five course-work semesters is composed of both on- and off-campus components. On-campus sessions, scheduled during the end of June and beginning of July and at the beginning of January, will employ a rather traditional mix of educational technologies (e.g., lectures, seminars and assigned reading). During the off-campus component of each semester, students pursue their studies employing a wide variety of innovative educational technologies (e.g., computer conferencing, computer-aided instruction, videotape packages and programmed instructional material), in addition to assigned readings and the completion of various assignments and projects. Upon completion of the five semesters of course work, students are required to return to campus each semester until a research proposal has been developed and successfully defended.

The program curriculum consists of a total of 51 credit hours (18 credit hours of common interdisciplinary core courses, 12 credit hours of research methods core courses, nine hours of specialty concentration courses and 12 hours of dissertation research).

Curriculum requirements

Courses	Credit hours
ALHP 701 Health Services Delivery Systems	3
ALHP 702 Finance and Economic Theory for Health Care	3
ALHP 708 Ethics and Health Care	3
ALHP 712 Curriculum and Communication Design for Health Care Professionals	3
ALHP 716 Grant Writing and Project Management in Health Related Sciences	3
ALHP 718 Health Informatics	3
ALHP 760 Biostatistical Methods for Health Related Sciences	3
ALHP 761 Health Related Sciences Research Design	3
ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research	3
ALHP 763 Clinical Outcomes Evaluation for Health Related Sciences	3
ALHP 781-001 Doctoral Seminar in Health Related Sciences	3
ALHP 792-801 Independent Study	1-4 (3 required)
ALHP 793-001 Research Practicum	3
ALHP 890 Dissertation Seminar	3
ALHP 899-801 Dissertation Research	9

51 Total graduate credit hours required (minimum)

Sample plan of study	
Courses	Credit hours
Semester 1	
ALHP 701 Health Services Delivery Systems	3
ALHP 712 Curriculum and Communication Design for Health Care Professionals	3
ALHP 760 Biostatistical Methods for Health Related Sciences	3
Semester 2	
ALHP 702 Finance and Economic Theory for Health Care	3
ALHP 761 Health Related Sciences Research Design	3
ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research	3
Semester 3	
ALHP 718 Health Informatics	3
ALHP 763 Clinical Outcomes Evaluation for Health Related Sciences	3
ALHP 781-001 Doctoral Seminar in Health Related Sciences	3

Methods comprehensive exam

Semester	1

ALHP 708 Ethics and Health Care	3
ALHP 716 Grant Writing and Project Management in Health	3
Related Sciences	
ALHP 890 Dissertation Seminar	3

Core comprehensive exam

Semester 5

ALHP 792-801 Independent Study	1-4 (3
	required)
ALHP 793-001 Research Practicum	3
ALHP 899-801 Dissertation Research	1-9 (9
	required)

Semester 6

ALHP 899-801 Dissertation Research variable

Semester 7

ALHP 899-801 Dissertation Research variable

Semester 8

ALHP 899-801 Dissertation Research variable

Total graduate credit hours required (minimum) 51

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Admission to candidacy

Students are eligible to begin their dissertations upon written certification by the program director and associate dean of the Graduate School that all predissertation/research requirements, including the comprehensive examinations, have been satisfied and that the student is prepared to proceed with the dissertation/research project. Copies of the certification will be forwarded to the student, the student's formal program adviser and the dean of the School of Allied Health Professions. After admission to candidacy, students will proceed to propose, complete and defend their dissertations or three journal articles research requirement.

Enrollment requirement

Students are required to maintain continuous enrollment in ALHP 899 Dissertation Research until completion of the requirements, including the defense process.

Dissertation and published research requirements

Dissertation/research committee

After successful completion of the comprehensive exam, the student nominates a dissertation/research committee, and the dissertation/research director submits the nominations in writing to the program director. Such committees will consist of a minimum of four graduate faculty members, one of whom will be outside the student's concentration area. The program director will provide written approval

of the dissertation/research committee and clear such appointments with the appropriate administrative officials.

Dissertation/research standards

The dissertation or publishable research articles must represent independent research and should be based on an original research question or hypothesis. Generally, dissertations or publishable research articles will demonstrate the student's ability with empirical research, adhering to canons of (1) logic in conceptualization and design, (2) valid and reliable measurement, (3) appropriate analytic technique and (4) appropriate interpretation of results. Studies should be based on a formal theoretical or conceptually explicit framework for investigating a question or testing a hypothesis relevant to the allied health field.

Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Program completion requirements

The doctor of philosophy degree is awarded after (1) the minimum 51 credit hours of course work are completed, (2) comprehensive exams are passed, and (3) either a dissertation is written and defended orally or three first-author articles of publishable quality (on research undertaken by the doctoral candidate once enrolled in the program) are written and defended orally. The journal articles will be scrutinized for quality of scholarship by an internal research committee headed by the student's research adviser. All three articles must be approved by the internal research committee prior to submission.

Other information

Student handbook

A student handbook will be made available to all admitted students in their cohort organizations in Blackboard.

Facilities

The administrative offices for the program are located on the MCV Campus, at 1200 E. Broad St. (West Hospital, First Floor, East Wing).

Advising

Upon admission to the program, students will be assigned an interim adviser to guide them through the core courses and assist them as they consider their areas of research. All program advisers will have an earned doctorate and be members of the university's graduate faculty.

Students may change their interim advisers as their programs of study and interests evolve, if approved by the program director. Although discouraged, some students may wish to switch their area of concentration (changing from the department through which they were initially admitted to the program). Students who want to change concentration areas must petition the doctoral program director. The petition must be approved by the program director, the DPAC and the appropriate department chair. There is no guarantee that the applicant will be accepted into the new concentration.

After successful completion of the comprehensive examinations, students will choose a dissertation chair that will serve as adviser and guide them through the research/dissertation process.

Computer requirements

All students admitted to the program must have a personal computer manufactured within the past two years and access to a high-speed Internet connection.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in gerontology

Graduate program director

Paula K. Kupstas, Ph.D. Associate professor and director pkupstas@vcu.edu (804) 828-1914

Additional contact

Monica L. White Program coordinator mlwhite1@vcu.edu (804) 828-3273

Program website: sahp.vcu.edu/phd

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Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in rehabilitation leadership

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in radiation sciences

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Health Related gerontology	l Sciences, Doctor of Phil	osophy (Ph.D.) with a co	oncentration in
Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE or MAT
	Fall	Mar 15 (application deadline)	Tests must have been
			taken within the past five years.

Special requirements:

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Two written examinations will be administered, one for the common interdisciplinary core and one for the research methods core. A three-member graduate faculty committee will develop and administer each exam. This committee will be made up of two members of the core advisory committee and one member appointed by the program director. Each exam will be offered once in the fall semester and once in the spring semester. Prior to completion of the semester in which students become eligible to take each exam, they must submit a formal statement of intent to the program coordinator.

Students who receive a failing grade on the initial attempt will have one opportunity to repeat each comprehensive examination. Failure to pass an exam on the second attempt will result in dismissal from the program.

The proposed curriculum is designed to take four years to complete. Students spend the first two and one-half years (six-month-long semesters) completing course work. The final year and one-half is spent developing the doctoral dissertation. Research components are present in each year of the program, and a research emphasis is present throughout the entire curriculum. Students are required to designate the area of intended research in their concentration areas in the first year.

Each of the five course-work semesters is composed of both on- and off-campus components. On-campus sessions, scheduled during the end of June and beginning of July and at the beginning of January, will employ a rather traditional mix of educational technologies (e.g., lectures, seminars and assigned reading). During the off-campus component of each semester, students pursue their studies employing a wide variety of innovative educational technologies (e.g., computer conferencing, computer-aided instruction, videotape packages and programmed instructional material), in addition to assigned readings and the completion of various assignments and projects. Upon completion of the five semesters of course work, students are required to return to campus each semester until a research proposal has been developed and successfully defended.

The program curriculum consists of a total of 51 credit hours (18 credit hours of common interdisciplinary core courses, 12 credit hours of research methods core courses, nine hours of specialty concentration courses and 12 hours of dissertation research).

Curriculum requirements

	Courses	Credit hours
Α	ALHP 701 Health Services Delivery Systems	3
Α	ALHP 702 Finance and Economic Theory for Health Care	3
Α	ALHP 708 Ethics and Health Care	3
	ALHP 712 Curriculum and Communication Design for Health Care professionals	3
	ALHP 716 Grant Writing and Project Management in Health Related Sciences	3
Α	ALHP 718 Health Informatics	3
Α	ALHP 760 Biostatistical Methods for Health Related Sciences	3
Α	ALHP 761 Health Related Sciences Research Design	3
	ALHP 762 Multivariate Statistical Methods for Health Related sciences Research	3
-	ALHP 763 Clinical Outcomes Evaluation for Health Related	3
Α	ALHP 781-002 Doctoral Seminar in Health Related Sciences	3
Α	ALHP 792-802 Independent Study	1-4 (3 required)
Α	ALHP 793-002 Research Practicum	3
Α	ALHP 890 Dissertation Seminar	3
A	ALHP 899-802 Dissertation Research	9
	Total graduate credit hours required (minimum)	51

Total graduate credit hours required (minimum)

Sample plan of study

Courses		
Semester 1		
ALHP 701 Health Services Delivery Systems	3	
ALHP 712 Curriculum and Communication Design for Health Care Professionals	3	

ALHP 760 Biostatistical Methods for Health Related Sciences	3
Semester 2	
ALHP 702 Finance and Economic Theory for Health Care	3
ALHP 761 Health Related Sciences Research Design	3
ALHP 762 Multivariate Statistical Methods for Health Related	3
Sciences Research	
Semester 3	
ALHP 718 Health Informatics	3
ALHP 763 Clinical Outcomes Evaluation for Health Related	3
Sciences	3
ALHP 781-002 Doctoral Seminar in Health Related Sciences	3
Methods comprehensive exam	
Semester 4	
ALHP 708 Ethics and Health Care	3
ALHP 716 Grant Writing and Project Management in Health	3
Related Sciences	
ALHP 890 Dissertation Seminar	3
Core comprehensive exam	
Semester 5	
ALHP 792-802 Independent Study	1-4 (3
ALTIF 792-802 independent study	required)
ALHP 793-002 Research Practicum	3
ALHP 899-802 Dissertation Research	1-9 (9
	required)
Semester 6	
ALHP 899-802 Dissertation Research	variable
ALTIP 899-802 Dissertation Research	variable
Semester 7	
ALHP 899-802 Dissertation Research	variable
Semester 8	
ALHP 899-802 Dissertation Research	variable
Total graduate credit hours required (minimum)	51

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Admission to candidacy

Students are eligible to begin their dissertations upon written certification by the program director and associate dean of the Graduate School that all predissertation/research requirements, including the comprehensive examinations, have been satisfied and that the student is prepared to proceed with the dissertation/research project. Copies of the certification will be forwarded to the

student, the student's formal program adviser and the dean of the School of Allied Health Professions. After admission to candidacy, students will proceed to propose, complete and defend their dissertations or three journal articles research requirement.

Enrollment requirement

Students are required to maintain continuous enrollment in ALHP 899
Dissertation Research until completion of the requirements, including the defense process.

Dissertation and published research requirements

Dissertation/research committee

After successful completion of the comprehensive exam, the student nominates a dissertation/research committee, and the dissertation/research director submits the nominations in writing to the program director. Such committees will consist of a minimum of four graduate faculty members, one of whom will be outside the student's concentration area. The program director will provide written approval of the dissertation/research committee and clear such appointments with the appropriate administrative officials.

Dissertation/research standards

The dissertation or publishable research articles must represent independent research and should be based on an original research question or hypothesis. Generally, dissertations or publishable research articles will demonstrate the student's ability with empirical research, adhering to canons of (1) logic in conceptualization and design, (2) valid and reliable measurement, (3) appropriate analytic technique and (4) appropriate interpretation of results. Studies should be based on a formal theoretical or conceptually explicit framework for investigating a question or testing a hypothesis relevant to the allied health field.

Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Program completion requirements

The doctor of philosophy degree is awarded after (1) the minimum 51 credit hours of course work are completed, (2) comprehensive exams are passed, and (3) either a dissertation is written and defended orally or three first-author articles of publishable quality (on research undertaken by the doctoral candidate once enrolled in the program) are written and defended orally. The journal articles will be scrutinized for quality of scholarship by an internal research committee headed by the student's research adviser. All three articles must be approved by the internal research committee prior to submission.

Other information

Student handbook

A student handbook will be made available to all admitted students in their cohort organizations in Blackboard.

Facilities

The administrative offices for the program are located on the MCV Campus, at 1200 E. Broad St. (West Hospital, First Floor, East Wing).

Advising

Upon admission to the program, students will be assigned an interim adviser to guide them through the core courses and assist them as they consider their areas of research. All program advisers will have an earned doctorate and be members of the university's graduate faculty.

Students may change their interim advisers as their programs of study and interests evolve, if approved by the program director. Although discouraged, some students may wish to switch their area of concentration (changing from the

department through which they were initially admitted to the program). Students who want to change concentration areas must petition the doctoral program director. The petition must be approved by the program director, the DPAC and the appropriate department chair. There is no guarantee that the applicant will be accepted into the new concentration.

After successful completion of the comprehensive examinations, students will choose a dissertation chair that will serve as adviser and guide them through the research/dissertation process.

Computer requirements

All students admitted to the program must have a personal computer manufactured within the past two years and access to a high-speed Internet connection.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in health care outcomes research

Graduate program director

Paula K. Kupstas, Ph.D. Associate professor and director pkupstas@vcu.edu (804) 828-1914

Additional contact

Monica L. White Program coordinator mlwhite1@vcu.edu (804) 828-3273

Program website: sahp.vcu.edu/phd

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in clinical laboratory sciences

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in gerontology

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in nurse anesthesia

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in occupational therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in patient counseling

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in physical therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in rehabilitation leadership

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in radiation sciences

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements:
Ph.D.	entry:		
	Fall	Mar 15 (application deadline)	GRE or MAT
			Tests must have been taken within the past
			five years.

score of 600. The Ph.D. program in health related sciences utilizes two six-month semesters per year (January through June and July through December), which include both on- and off-campus components.

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following criteria:

 Have an earned master's degree in an academic or allied health-related field from an accredited college or university; preference will be given to applicants who have a minimum cumulative GPA of 3.3 on master's-level

- work (The master's degree should be in one of the departmental areas of choice of concentration.)
- 2. Have GRE (verbal, quantitative and analytic writing) or MAT scores from within the past five years
- 3. Have completed a graduate course in statistics with a minimum grade of B
- 4. Demonstrate a record of professional competency and success
- Articulate clear professional and educational goals and written communication skills through the submission of a written essay
- 6. Have any additional qualifications/certifications of the individual concentrations

Prior to reviewing an application for admission, the program must receive:

- 1. A completed application form from the applicant, including:
 - a. Three letters of recommendation, two of which preferably are from sources qualified to assess the candidate's academic potential
 - A written essay that discusses career goals and the manner in which this
 doctoral program will enhance those goals and what the applicant
 expects to contribute to this program
 - c. A curriculum vitae
- Official transcripts indicating completion of baccalaureate and master's degrees (or equivalent) from an accredited college or university
- 5. GRE or MAT scores

Incomplete packages may not be reviewed. Materials are sent to the Graduate Admissions office for processing and then forwarded to the School of Allied Health Professions. Once received in the school, the application is reviewed for completeness. Applicants with incomplete files will be contacted regarding the missing materials. Incomplete files will be held in the director's office until all materials are received.

Completed folders will be sent to the respective departmental representative of the School of Allied Health Professions Doctoral Program Advisory Committee. Departments will then rank qualified applicants and, based on a review of the file, a personal interview will be scheduled at the department's discretion for the top candidates. Following the departmental ranking, all files will be returned to the director's office.

The DPAC will meet to select and recommend the incoming class. The director and the dean of the School of Allied Health Professions are responsible for the final decision.

Applicants will be notified by the Graduate Admissions office regarding the admission decision and of the deadline for their acceptance of the offer and holding fee.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission/purpose

The program will provide experienced health professionals with advanced knowledge and skills so that they may assume positions in teaching, research and administration upon graduation. It offers a curriculum with an interdisciplinary core of courses with concentrations in clinical laboratory sciences, gerontology, health care outcomes research, nurse anesthesia, occupational therapy, patient counseling, physical therapy, radiation sciences and rehabilitation leadership. The program emphasizes use of distance-learning technologies combined with traditional didactic methods. The curriculum is relevant, timely and meaningful to a multidisciplinary cohort of students.

Program goals

- The program will provide students with the ability to understand and conduct research in health-related sciences.
- The program will provide the student with the ability to analyze alternatives and develop responses in their disciplines to address the current and future challenges in health care.
- The program will provide students with the skills to educate health professionals in their discipline using current principles of teaching and curriculum development.

Student learning outcomes

Students completing this doctoral program will:

- Demonstrate the ability to conduct research, understand issues, design and execute research plans, analyze research results, and present conclusions in the area of interdisciplinary health care using the appropriate methods
- 2. Demonstrate an in-depth knowledge in the area of specialization
- Exhibit competency in translating research knowledge and principles into applied practice perspectives and skills
- Display educational expertise in current principles and content of the allied health sciences and teach in the area of interdisciplinary health care practice
- Display the ability to examine current issues and future changes in the health care environment from an interdisciplinary perspective
- Exhibit knowledge and understanding of professional and ethical responsibility and conduct in the allied health professions
- Demonstrate knowledge and understanding of the importance of cultural diversity in the delivery of health care and the formulation of health policy

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must successfully complete a total of 51 credit hours (18 credit hours of common interdisciplinary core courses, 12 credit hours of research methods core courses, nine credit hours of specialty track courses and 12 credit hours of dissertation research), two comprehensive examinations, a research proposal defense and the final dissertation defense.

Continuation requirements

After admission to the Ph.D. program, the student must maintain a minimum cumulative GPA of 3.0 in all of the course work completed at VCU. A student who falls below that minimum will have one semester to remedy the deficiency. Even with an overall minimum GPA of 3.0, a student may earn no more than two (six credit hours) grades of C. Students who receive a grade of D or F will be reviewed for continuation in the program by the department of their concentrations.

Students are expected to maintain continuous enrollment while in the program. Following the completion of the core course work, students must register for at least one credit hour each fall and spring semester for continuation in the program. A student who fails to register must have advance approval to do so or will be dropped automatically from the program and must reapply for reinstatement. The maximum time to complete all of the requirements for the degree is eight calendar years from the date of entry into the program.

Course transfer or waiver

A maximum of 25 percent of the course work other than research may be transferred from another VCU program or outside institution and applied toward

the Ph.D. course requirements. Transfer and waiver credit is given at the discretion of the program director after consultation with appropriate faculty members, subject to university approval. Courses taken as requirements for other degrees are not transferable. A waiver may be warranted if an equivalent course was taken. However, another course must be substituted for the waived course in order to fulfill the requisite 51 credit hours needed for degree completion.

Comprehensive examination

The purpose of the comprehensive examination is to provide a vehicle through which students can demonstrate the ability to integrate their educational experiences by adequately addressing complex questions pertinent to the current and developing knowledge of the allied health fields. Students are eligible to take each of the two comprehensive examinations upon successful completion of the appropriate core course work. The core exam must be taken within six months of completing the methods exam.

Two written examinations will be administered, one for the common interdisciplinary core and one for the research methods core. A three-member graduate faculty committee will develop and administer each exam. This committee will be made up of two members of the core advisory committee and one member appointed by the program director. Each exam will be offered once in the fall semester and once in the spring semester. Prior to completion of the semester in which students become eligible to take each exam, they must submit a formal statement of intent to the program coordinator.

Students who receive a failing grade on the initial attempt will have one opportunity to repeat each comprehensive examination. Failure to pass an exam on the second attempt will result in dismissal from the program.

The proposed curriculum is designed to take four years to complete. Students spend the first two and one-half years (six-month-long semesters) completing course work. The final year and one-half is spent developing the doctoral dissertation. Research components are present in each year of the program, and a research emphasis is present throughout the entire curriculum. Students are required to designate the area of intended research in their concentration areas in the first year.

Each of the five course-work semesters is composed of both on- and off-campus components. On-campus sessions, scheduled during the end of June and beginning of July and at the beginning of January, will employ a rather traditional mix of educational technologies (e.g., lectures, seminars and assigned reading). During the off-campus component of each semester, students pursue their studies employing a wide variety of innovative educational technologies (e.g., computer conferencing, computer-aided instruction, videotape packages and programmed instructional material), in addition to assigned readings and the completion of various assignments and projects. Upon completion of the five semesters of course work, students are required to return to campus each semester until a research proposal has been developed and successfully defended.

The program curriculum consists of a total of 51 credit hours (18 credit hours of common interdisciplinary core courses, 12 credit hours of research methods core courses, nine hours of specialty concentration courses and 12 hours of dissertation research)

Curriculum requirements

Courses		Credit hours
ALHP 701 Health Services Delivery Systems	3	
ALHP 702 Finance and Economic Theory for Health Care	3	
ALHP 708 Ethics and Health Care	3	
ALHP 712 Curriculum and Communication Design for Health Care Professionals	3	
ALHP 716 Grant Writing and Project Management in Health Related Sciences	3	
ALHP 718 Health Informatics	3	
ALHP 760 Biostatistical Methods for Health Related Sciences	3	
ALHP 761 Health Related Sciences Research Design	3	
ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research	3	
ALHP 763 Clinical Outcomes Evaluation for Health Related Sciences	3	

ALHP 781-003 Doctoral Seminar in Health Related Sciences	3
ALHP 792-803 Independent Study	1-4 (3
	required)
ALHP 793-003 Research Practicum	3
ALHP 890 Dissertation Seminar	3
ALHP 899-803 Dissertation Research	9

Total graduate credit hours required (minimum) 51

Sample plan of study	
Courses	Credit hours
Semester 1	
ALHP 701 Health Services Delivery Systems	3
ALHP 712 Curriculum and Communication Design for Health Care	3
Professionals ALHP 760 Biostatistical Methods for Health Related Sciences	3
Semester 2	
ALHP 702 Finance and Economic Theory for Health Care	3
ALHP 761 Health Related Sciences Research Design	3
ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research	3
Semester 3	
ALHP 718 Health Informatics	3
ALHP 763 Clinical Outcomes Evaluation for Health Related	3
Sciences	
ALHP 781-003 Doctoral Seminar in Health Related Sciences	3
Methods comprehensive exam	
Semester 4	
ALHP 708 Ethics and Health Care	3
ALHP 716 Grant Writing and Project Management in Health	3
Related Sciences	2
ALHP 890 Dissertation Seminar	3
Core comprehensive exam	
Semester 5	
ALHP 792-803 Independent Study	1-4 (3
	required)
ALHP 793-003 Research Practicum	3
ALHP 899-803 Dissertation Research	1-9 (9 required)
	required)
Semester 6	
ALHP 899-803 Dissertation Research	variable
Semester 7	
ALHP 899-803 Dissertation Research	variable
Semester 8	
ALHP 899-803 Dissertation Research	variable
Total graduate credit hours required (minimum)	51

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the

student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Admission to candidacy

Students are eligible to begin their dissertations upon written certification by the program director and associate dean of the Graduate School that all predissertation/research requirements, including the comprehensive examinations, have been satisfied and that the student is prepared to proceed with the dissertation/research project. Copies of the certification will be forwarded to the student, the student's formal program adviser and the dean of the School of Allied Health Professions. After admission to candidacy, students will proceed to propose, complete and defend their dissertations or three journal articles research requirement.

Enrollment requirement

Students are required to maintain continuous enrollment in ALHP 899 Dissertation Research until completion of the requirements, including the defense process.

Dissertation and published research requirements

Dissertation/research committee

After successful completion of the comprehensive exam, the student nominates a dissertation/research committee, and the dissertation/research director submits the nominations in writing to the program director. Such committees will consist of a minimum of four graduate faculty members, one of whom will be outside the student's concentration area. The program director will provide written approval of the dissertation/research committee and clear such appointments with the appropriate administrative officials.

Dissertation/research standards

The dissertation or publishable research articles must represent independent research and should be based on an original research question or hypothesis. Generally, dissertations or publishable research articles will demonstrate the student's ability with empirical research, adhering to canons of (1) logic in conceptualization and design, (2) valid and reliable measurement, (3) appropriate analytic technique and (4) appropriate interpretation of results. Studies should be based on a formal theoretical or conceptually explicit framework for investigating a question or testing a hypothesis relevant to the allied health field.

Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Program completion requirements

The doctor of philosophy degree is awarded after (1) the minimum 51 credit hours of course work are completed, (2) comprehensive exams are passed, and (3) either a dissertation is written and defended orally or three first-author articles of publishable quality (on research undertaken by the doctoral candidate once enrolled in the program) are written and defended orally. The journal articles will be scrutinized for quality of scholarship by an internal research committee headed

by the student's research adviser. All three articles must be approved by the internal research committee prior to submission.

Other information

Student handbook

A student handbook will be made available to all admitted students in their cohort organizations in Blackboard.

Facilities

The administrative offices for the program are located on the MCV Campus, at 1200 E. Broad St. (West Hospital, First Floor, East Wing).

Advising

Upon admission to the program, students will be assigned an interim adviser to guide them through the core courses and assist them as they consider their areas of research. All program advisers will have an earned doctorate and be members of the university's graduate faculty.

Students may change their interim advisers as their programs of study and interests evolve, if approved by the program director. Although discouraged, some students may wish to switch their area of concentration (changing from the department through which they were initially admitted to the program). Students who want to change concentration areas must petition the doctoral program director. The petition must be approved by the program director, the DPAC and the appropriate department chair. There is no guarantee that the applicant will be accepted into the new concentration.

After successful completion of the comprehensive examinations, students will choose a dissertation chair that will serve as adviser and guide them through the research/dissertation process.

Computer requirements

All students admitted to the program must have a personal computer manufactured within the past two years and access to a high-speed Internet connection.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in nurse anesthesia

Graduate program director

Paula K. Kupstas, Ph.D. Associate professor and director pkupstas@vcu.edu (804) 828-1914

Additional contact

Monica L. White Program coordinator mlwhite1@vcu.edu (804) 828-3273

Program website: sahp.vcu.edu/phd

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

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Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in gerontology

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in health care outcomes research

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in occupational therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in patient counseling

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in physical therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in rehabilitation leadership

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in radiation sciences

Apply online at graduate.admissions.vcu.edu.

Admission requirements

anesthesia Degree:	Semester(s) of	Deadline dates:	Test requirements:
Ph.D.	entry:		
	Fall	Mar 15 (application deadline)	GRE or MAT
			Tests must have been taken within the past five years.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in nurse

Special requirements:

When applicable, applicants must have a minimum Test of English as a Foreign Language score of 600. The Ph.D. program in health related sciences utilizes two six-month semesters per year (January through June and July through December), which include both on- and off-campus components.

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following criteria:

- Have an earned master's degree in an academic or allied health-related field from an accredited college or university; preference will be given to applicants who have a minimum cumulative GPA of 3.3 on master's-level work (The master's degree should be in one of the departmental areas of choice of concentration.)
- 2. Have GRE (verbal, quantitative and analytic writing) or MAT scores from within the past five years
- 3. Have completed a graduate course in statistics with a minimum grade of B
- 4. Demonstrate a record of professional competency and success
- 5. Articulate clear professional and educational goals and written communication skills through the submission of a written essay
- 6. Have any additional qualifications/certifications of the individual concentrations

Prior to reviewing an application for admission, the program must receive:

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 - A written essay that discusses career goals and the manner in which this
 doctoral program will enhance those goals and what the applicant
 expects to contribute to this program
 - c. A curriculum vitae
- 4. Official transcripts indicating completion of baccalaureate and master's degrees (or equivalent) from an accredited college or university
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Incomplete packages may not be reviewed. Materials are sent to the Graduate Admissions office for processing and then forwarded to the School of Allied Health Professions. Once received in the school, the application is reviewed for completeness. Applicants with incomplete files will be contacted regarding the missing materials. Incomplete files will be held in the director's office until all materials are received.

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It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program mission/purpose

The program will provide experienced health professionals with advanced knowledge and skills so that they may assume positions in teaching, research and administration upon graduation. It offers a curriculum with an interdisciplinary core of courses with concentrations in clinical laboratory sciences, gerontology, health care outcomes research, nurse anesthesia, occupational therapy, patient counseling, physical therapy, radiation sciences and rehabilitation leadership. The program emphasizes use of distance-learning technologies combined with traditional didactic methods. The curriculum is relevant, timely and meaningful to a multidisciplinary cohort of students.

Program goals

- The program will provide students with the ability to understand and conduct research in health-related sciences.
- The program will provide the student with the ability to analyze alternatives and develop responses in their disciplines to address the current and future challenges in health care.
- The program will provide students with the skills to educate health professionals in their discipline using current principles of teaching and curriculum development.

Student learning outcomes

Students completing this doctoral program will:

- Demonstrate the ability to conduct research, understand issues, design and execute research plans, analyze research results, and present conclusions in the area of interdisciplinary health care using the appropriate methods
- 2. Demonstrate an in-depth knowledge in the area of specialization
- Exhibit competency in translating research knowledge and principles into applied practice perspectives and skills
- 4. Display educational expertise in current principles and content of the allied health sciences and teach in the area of interdisciplinary health care practice
- Display the ability to examine current issues and future changes in the health care environment from an interdisciplinary perspective
- Exhibit knowledge and understanding of professional and ethical responsibility and conduct in the allied health professions
- Demonstrate knowledge and understanding of the importance of cultural diversity in the delivery of health care and the formulation of health policy

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must successfully complete a total of 51 credit hours (18 credit hours of common

interdisciplinary core courses, 12 credit hours of research methods core courses, nine credit hours of specialty track courses and 12 credit hours of dissertation research), two comprehensive examinations, a research proposal defense and the final dissertation defense.

Continuation requirements

After admission to the Ph.D. program, the student must maintain a minimum cumulative GPA of 3.0 in all of the course work completed at VCU. A student who falls below that minimum will have one semester to remedy the deficiency. Even with an overall minimum GPA of 3.0, a student may earn no more than two (six credit hours) grades of C. Students who receive a grade of D or F will be reviewed for continuation in the program by the department of their concentrations

Students are expected to maintain continuous enrollment while in the program. Following the completion of the core course work, students must register for at least one credit hour each fall and spring semester for continuation in the program. A student who fails to register must have advance approval to do so or will be dropped automatically from the program and must reapply for reinstatement. The maximum time to complete all of the requirements for the degree is eight calendar years from the date of entry into the program.

Course transfer or waiver

A maximum of 25 percent of the course work other than research may be transferred from another VCU program or outside institution and applied toward the Ph.D. course requirements. Transfer and waiver credit is given at the discretion of the program director after consultation with appropriate faculty members, subject to university approval. Courses taken as requirements for other degrees are not transferable. A waiver may be warranted if an equivalent course was taken. However, another course must be substituted for the waived course in order to fulfill the requisite 51 credit hours needed for degree completion.

Comprehensive examination

The purpose of the comprehensive examination is to provide a vehicle through which students can demonstrate the ability to integrate their educational experiences by adequately addressing complex questions pertinent to the current and developing knowledge of the allied health fields. Students are eligible to take each of the two comprehensive examinations upon successful completion of the appropriate core course work. The core exam must be taken within six months of completing the methods exam.

Two written examinations will be administered, one for the common interdisciplinary core and one for the research methods core. A three-member graduate faculty committee will develop and administer each exam. This committee will be made up of two members of the core advisory committee and one member appointed by the program director. Each exam will be offered once in the fall semester and once in the spring semester. Prior to completion of the semester in which students become eligible to take each exam, they must submit a formal statement of intent to the program coordinator.

Students who receive a failing grade on the initial attempt will have one opportunity to repeat each comprehensive examination. Failure to pass an exam on the second attempt will result in dismissal from the program.

The proposed curriculum is designed to take four years to complete. Students spend the first two and one-half years (six-month-long semesters) completing course work. The final year and one-half is spent developing the doctoral dissertation. Research components are present in each year of the program, and a research emphasis is present throughout the entire curriculum. Students are required to designate the area of intended research in their concentration areas in the first year.

Each of the five course-work semesters is composed of both on- and off-campus components. On-campus sessions, scheduled during the end of June and beginning of July and at the beginning of January, will employ a rather traditional mix of educational technologies (e.g., lectures, seminars and assigned reading). During the off-campus component of each semester, students pursue their studies employing a wide variety of innovative educational technologies (e.g., computer conferencing, computer-aided instruction, videotape packages and programmed instructional material), in addition to assigned readings and the completion of various assignments and projects. Upon completion of the five semesters of course work, students are required to return to campus each semester until a research proposal has been developed and successfully defended.

The program curriculum consists of a total of 51 credit hours (18 credit hours of common interdisciplinary core courses, 12 credit hours of research methods core

courses, nine hours of specialty concentration courses and 12 hours of dissertation research).

Curriculum requirements

Courses	Credit hours
ALHP 701 Health Services Delivery Systems	3
ALHP 702 Finance and Economic Theory for Health Care	3
ALHP 708 Ethics and Health Care	3
ALHP 712 Curriculum and Communication Design for Health Care Professionals	3
ALHP 716 Grant Writing and Project Management in Health Related Sciences	3
ALHP 718 Health Informatics	3
ALHP 760 Biostatistical Methods for Health Related Sciences	3
ALHP 761 Health Related Sciences Research Design	3
ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research	3
ALHP 763 Clinical Outcomes Evaluation for Health Related Sciences	3
ALHP 781-004 Doctoral Seminar in Health Related Sciences	3
ALHP 792-804 Independent Study	1-4 (3 required)
ALHP 793-004 Research Practicum	3
ALHP 890 Dissertation Seminar	3
ALHP 899-804 Dissertation Research	9
Total graduate credit hours required (minimum)	51

Sample plan of study

Courses	Cre hou	
Semester 1		
ALHP 701 Health Services Delivery Systems	3	
ALHP 712 Curriculum and Communication Design for Health Care Professionals	3	
ALHP 760 Biostatistical Methods for Health Related Sciences	3	
Semester 2		
ALHP 702 Finance and Economic Theory for Health Care	3	
ALHP 761 Health Related Sciences Research Design	3	
ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research	3	
Semester 3		
ALHP 718 Health Informatics	3	
ALHP 763 Clinical Outcomes Evaluation for Health Related Sciences	3	
ALHP 781-004 Doctoral Seminar in Health Related Sciences	3	
Methods comprehensive exam		
Semester 4		
ALHP 708 Ethics and Health Care	3	
ALHP 716 Grant Writing and Project Management in Health Related Sciences	3	
ALHP 890 Dissertation Seminar	3	
Core comprehensive exam		

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Semester 5	
ALHP 792-804 Independent Study	1-4 (3 required)
ALHP 793-004 Research Practicum	3
ALHP 899-804 Dissertation Research	1-9 (9 required)
Semester 6	
ALHP 899-804 Dissertation Research	variable
Semester 7	
ALHP 899-804 Dissertation Research	variable
Semester 8	
ALHP 899-804 Dissertation Research	variable
Total graduate credit hours required (minimum)	51

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Admission to candidacy

Students are eligible to begin their dissertations upon written certification by the program director and associate dean of the Graduate School that all predissertation/research requirements, including the comprehensive examinations, have been satisfied and that the student is prepared to proceed with the dissertation/research project. Copies of the certification will be forwarded to the student, the student's formal program adviser and the dean of the School of Allied Health Professions. After admission to candidacy, students will proceed to propose, complete and defend their dissertations or three journal articles research requirement.

Enrollment requirement

Students are required to maintain continuous enrollment in ALHP 899
Dissertation Research until completion of the requirements, including the defense

Dissertation and published research requirements

Dissertation/research committee

After successful completion of the comprehensive exam, the student nominates a dissertation/research committee, and the dissertation/research director submits the nominations in writing to the program director. Such committees will consist of a minimum of four graduate faculty members, one of whom will be outside the student's concentration area. The program director will provide written approval of the dissertation/research committee and clear such appointments with the appropriate administrative officials.

Dissertation/research standards

The dissertation or publishable research articles must represent independent research and should be based on an original research question or hypothesis. Generally, dissertations or publishable research articles will demonstrate the student's ability with empirical research, adhering to canons of (1) logic in conceptualization and design, (2) valid and reliable measurement, (3) appropriate analytic technique and (4) appropriate interpretation of results. Studies should be

based on a formal theoretical or conceptually explicit framework for investigating a question or testing a hypothesis relevant to the allied health field.

Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Program completion requirements

The doctor of philosophy degree is awarded after (1) the minimum 51 credit hours of course work are completed, (2) comprehensive exams are passed, and (3) either a dissertation is written and defended orally or three first-author articles of publishable quality (on research undertaken by the doctoral candidate once enrolled in the program) are written and defended orally. The journal articles will be scrutinized for quality of scholarship by an internal research committee headed by the student's research adviser. All three articles must be approved by the internal research committee prior to submission.

Other information

Student handbook

A student handbook will be made available to all admitted students in their cohort organizations in Blackboard.

Facilities

The administrative offices for the program are located on the MCV Campus, at 1200 E. Broad St. (West Hospital, First Floor, East Wing).

Advising

Upon admission to the program, students will be assigned an interim adviser to guide them through the core courses and assist them as they consider their areas of research. All program advisers will have an earned doctorate and be members of the university's graduate faculty.

Students may change their interim advisers as their programs of study and interests evolve, if approved by the program director. Although discouraged, some students may wish to switch their area of concentration (changing from the department through which they were initially admitted to the program). Students who want to change concentration areas must petition the doctoral program director. The petition must be approved by the program director, the DPAC and the appropriate department chair. There is no guarantee that the applicant will be accepted into the new concentration.

After successful completion of the comprehensive examinations, students will choose a dissertation chair that will serve as adviser and guide them through the research/dissertation process.

Computer requirements

All students admitted to the program must have a personal computer manufactured within the past two years and access to a high-speed Internet connection.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in occupational therapy

Graduate program director

Paula K. Kupstas, Ph.D. Associate professor and director pkupstas@vcu.edu (804) 828-1914

Additional contact

Monica L. White Program coordinator

mlwhite 1 @vcu.edu

(804) 828-3273

Program website: sahp.vcu.edu/phd

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in clinical laboratory sciences

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in gerontology

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in health care outcomes research

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in nurse anesthesia

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in patient counseling

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in physical therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in rehabilitation leadership

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in radiation sciences

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in occupational therapy

Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements:
	Fall	Mar 15 (application deadline)	GRE or MAT
			Tests must have been taken within the past five years.

Special requirements:

When applicable, applicants must have a minimum Test of English as a Foreign Language score of 600. The Ph.D. program in health related sciences utilizes two six-month semesters per year (January through June and July through December), which include both on- and off-campus components.

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following criteria:

- Have an earned master's degree in an academic or allied health-related field from an accredited college or university; preference will be given to applicants who have a minimum cumulative GPA of 3.3 on master's-level work (The master's degree should be in one of the departmental areas of choice of concentration.)
- 2. Have GRE (verbal, quantitative and analytic writing) or MAT scores from within the past five years
- 3. Have completed a graduate course in statistics with a minimum grade of B
- 4. Demonstrate a record of professional competency and success
- Articulate clear professional and educational goals and written communication skills through the submission of a written essay
- 6. Have any additional qualifications/certifications of the individual concentrations

Prior to reviewing an application for admission, the program must receive:

- 1. A completed application form from the applicant, including:
 - a. Three letters of recommendation, two of which preferably are from sources qualified to assess the candidate's academic potential
 - A written essay that discusses career goals and the manner in which this
 doctoral program will enhance those goals and what the applicant
 expects to contribute to this program
 - c. A curriculum vitae
- 4. Official transcripts indicating completion of baccalaureate and master's degrees (or equivalent) from an accredited college or university
- 5. GRE or MAT scores

Incomplete packages may not be reviewed. Materials are sent to the Graduate Admissions office for processing and then forwarded to the School of Allied Health Professions. Once received in the school, the application is reviewed for completeness. Applicants with incomplete files will be contacted regarding the missing materials. Incomplete files will be held in the director's office until all materials are received.

Completed folders will be sent to the respective departmental representative of the School of Allied Health Professions Doctoral Program Advisory Committee. Departments will then rank qualified applicants and, based on a review of the file, a personal interview will be scheduled at the department's discretion for the top candidates. Following the departmental ranking, all files will be returned to the director's office.

The DPAC will meet to select and recommend the incoming class. The director and the dean of the School of Allied Health Professions are responsible for the final decision

Applicants will be notified by the Graduate Admissions office regarding the admission decision and of the deadline for their acceptance of the offer and holding fee.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission/purpose

The program will provide experienced health professionals with advanced knowledge and skills so that they may assume positions in teaching, research and administration upon graduation. It offers a curriculum with an interdisciplinary core of courses with concentrations in clinical laboratory sciences, gerontology, health care outcomes research, nurse anesthesia, occupational therapy, patient counseling, physical therapy, radiation sciences and rehabilitation leadership. The program emphasizes use of distance-learning technologies combined with traditional didactic methods. The curriculum is relevant, timely and meaningful to a multidisciplinary cohort of students.

Program goals

- The program will provide students with the ability to understand and conduct research in health-related sciences.
- The program will provide the student with the ability to analyze alternatives and develop responses in their disciplines to address the current and future challenges in health care.
- The program will provide students with the skills to educate health professionals in their discipline using current principles of teaching and curriculum development.

Student learning outcomes

Students completing this doctoral program will:

- Demonstrate the ability to conduct research, understand issues, design and
 execute research plans, analyze research results, and present conclusions in
 the area of interdisciplinary health care using the appropriate methods
- 2. Demonstrate an in-depth knowledge in the area of specialization
- Exhibit competency in translating research knowledge and principles into applied practice perspectives and skills
- Display educational expertise in current principles and content of the allied health sciences and teach in the area of interdisciplinary health care practice
- 5. Display the ability to examine current issues and future changes in the health care environment from an interdisciplinary perspective
- Exhibit knowledge and understanding of professional and ethical responsibility and conduct in the allied health professions
- 7. Demonstrate knowledge and understanding of the importance of cultural diversity in the delivery of health care and the formulation of health policy

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must successfully complete a total of 51 credit hours (18 credit hours of common interdisciplinary core courses, 12 credit hours of research methods core courses, nine credit hours of specialty track courses and 12 credit hours of dissertation research), two comprehensive examinations, a research proposal defense and the final dissertation defense.

Continuation requirements

After admission to the Ph.D. program, the student must maintain a minimum cumulative GPA of 3.0 in all of the course work completed at VCU. A student who falls below that minimum will have one semester to remedy the deficiency. Even with an overall minimum GPA of 3.0, a student may earn no more than two (six credit hours) grades of C. Students who receive a grade of D or F will be reviewed for continuation in the program by the department of their concentrations

Students are expected to maintain continuous enrollment while in the program. Following the completion of the core course work, students must register for at least one credit hour each fall and spring semester for continuation in the program. A student who fails to register must have advance approval to do so or will be dropped automatically from the program and must reapply for reinstatement. The maximum time to complete all of the requirements for the degree is eight calendar years from the date of entry into the program.

Course transfer or waiver

A maximum of 25 percent of the course work other than research may be transferred from another VCU program or outside institution and applied toward the Ph.D. course requirements. Transfer and waiver credit is given at the discretion of the program director after consultation with appropriate faculty members, subject to university approval. Courses taken as requirements for other degrees are not transferable. A waiver may be warranted if an equivalent course was taken. However, another course must be substituted for the waived course in order to fulfill the requisite 51 credit hours needed for degree completion.

Comprehensive examination

The purpose of the comprehensive examination is to provide a vehicle through which students can demonstrate the ability to integrate their educational experiences by adequately addressing complex questions pertinent to the current and developing knowledge of the allied health fields. Students are eligible to take each of the two comprehensive examinations upon successful completion of the appropriate core course work. The core exam must be taken within six months of completing the methods exam.

Two written examinations will be administered, one for the common interdisciplinary core and one for the research methods core. A three-member graduate faculty committee will develop and administer each exam. This committee will be made up of two members of the core advisory committee and one member appointed by the program director. Each exam will be offered once in the fall semester and once in the spring semester. Prior to completion of the semester in which students become eligible to take each exam, they must submit a formal statement of intent to the program coordinator.

Students who receive a failing grade on the initial attempt will have one opportunity to repeat each comprehensive examination. Failure to pass an exam on the second attempt will result in dismissal from the program.

The proposed curriculum is designed to take four years to complete. Students spend the first two and one-half years (six-month-long semesters) completing course work. The final year and one-half is spent developing the doctoral dissertation. Research components are present in each year of the program, and a research emphasis is present throughout the entire curriculum. Students are required to designate the area of intended research in their concentration areas in the first year.

Each of the five course-work semesters is composed of both on- and off-campus components. On-campus sessions, scheduled during the end of June and beginning of July and at the beginning of January, will employ a rather traditional mix of educational technologies (e.g., lectures, seminars and assigned reading). During the off-campus component of each semester, students pursue their studies employing a wide variety of innovative educational technologies (e.g., computer conferencing, computer-aided instruction, videotape packages and programmed instructional material), in addition to assigned readings and the completion of various assignments and projects. Upon completion of the five semesters of course work, students are required to return to campus each semester until a research proposal has been developed and successfully defended.

The program curriculum consists of a total of 51 credit hours (18 credit hours of common interdisciplinary core courses, 12 credit hours of research methods core courses, nine hours of specialty concentration courses and 12 hours of dissertation research).

Curriculum requirements

Courses	Credit hours
ALHP 701 Health Services Delivery Systems	3
ALHP 702 Finance and Economic Theory for Health Care	3
ALHP 708 Ethics and Health Care	3
ALHP 712 Curriculum and Communication Design for Health Care Professionals	3
ALHP 716 Grant Writing and Project Management in Health Related Sciences	3
ALHP 718 Health Informatics	3
ALHP 760 Biostatistical Methods for Health Related Sciences	3
ALHP 761 Health Related Sciences Research Design	3
ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research	3
ALHP 763 Clinical Outcomes Evaluation for Health Related Sciences	3
ALHP 781-005 Doctoral Seminar in Health Related Sciences	3
ALHP 792-805 Independent Study	1-4 (3 required)
ALHP 793-005 Research Practicum	3
ALHP 890 Dissertation Seminar	3
ALHP 899-805 Dissertation Research	9
Total graduate credit hours required (minimum)	51

Sample plan of study

Courses	Credit hours
Semester 1	
ALHP 701 Health Services Delivery Systems	3
ALHP 712 Curriculum and Communication Design for Health Care	3
Professionals	
ALHP 760 Biostatistical Methods for Health Related Sciences	3
Semester 2	
ALHP 702 Finance and Economic Theory for Health Care	3
ALHP 761 Health Related Sciences Research Design	3

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51

ALUD 762 Multivarieta Statistical Mathada for Health Deleted

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Admission to candidacy

Students are eligible to begin their dissertations upon written certification by the program director and associate dean of the Graduate School that all predissertation/research requirements, including the comprehensive examinations, have been satisfied and that the student is prepared to proceed with the dissertation/research project. Copies of the certification will be forwarded to the student, the student's formal program adviser and the dean of the School of Allied Health Professions. After admission to candidacy, students will proceed to propose, complete and defend their dissertations or three journal articles research requirement.

Enrollment requirement

Students are required to maintain continuous enrollment in ALHP 899 Dissertation Research until completion of the requirements, including the defense

Dissertation and published research requirements

Dissertation/research committee

After successful completion of the comprehensive exam, the student nominates a dissertation/research committee, and the dissertation/research director submits the nominations in writing to the program director. Such committees will consist of a minimum of four graduate faculty members, one of whom will be outside the student's concentration area. The program director will provide written approval of the dissertation/research committee and clear such appointments with the appropriate administrative officials.

Dissertation/research standards

The dissertation or publishable research articles must represent independent research and should be based on an original research question or hypothesis. Generally, dissertations or publishable research articles will demonstrate the student's ability with empirical research, adhering to canons of (1) logic in conceptualization and design, (2) valid and reliable measurement, (3) appropriate analytic technique and (4) appropriate interpretation of results. Studies should be based on a formal theoretical or conceptually explicit framework for investigating a question or testing a hypothesis relevant to the allied health field.

Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Program completion requirements

The doctor of philosophy degree is awarded after (1) the minimum 51 credit hours of course work are completed, (2) comprehensive exams are passed, and (3) either a dissertation is written and defended orally or three first-author articles of publishable quality (on research undertaken by the doctoral candidate once enrolled in the program) are written and defended orally. The journal articles will be scrutinized for quality of scholarship by an internal research committee headed by the student's research adviser. All three articles must be approved by the internal research committee prior to submission.

Other information

Student handbook

A student handbook will be made available to all admitted students in their cohort organizations in Blackboard.

Facilities

The administrative offices for the program are located on the MCV Campus, at 1200 E. Broad St. (West Hospital, First Floor, East Wing).

Advising

Upon admission to the program, students will be assigned an interim adviser to guide them through the core courses and assist them as they consider their areas of research. All program advisers will have an earned doctorate and be members of the university's graduate faculty.

Students may change their interim advisers as their programs of study and interests evolve, if approved by the program director. Although discouraged, some students may wish to switch their area of concentration (changing from the department through which they were initially admitted to the program). Students who want to change concentration areas must petition the doctoral program director. The petition must be approved by the program director, the DPAC and the appropriate department chair. There is no guarantee that the applicant will be accepted into the new concentration.

After successful completion of the comprehensive examinations, students will choose a dissertation chair that will serve as adviser and guide them through the research/dissertation process.

Computer requirements

All students admitted to the program must have a personal computer manufactured within the past two years and access to a high-speed Internet connection.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in patient counseling

Graduate program director

Paula K. Kupstas, Ph.D. Associate professor and director pkupstas@vcu.edu (804) 828-1914

Additional contact

Monica L. White Program coordinator mlwhite1@vcu.edu (804) 828-3273

Program website: sahp.vcu.edu/phd

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in clinical laboratory sciences

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in gerontology

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in health care outcomes research

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in nurse anesthesia

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in occupational therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in physical therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in rehabilitation leadership

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in radiation sciences

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in patient counseling Degree: Semester(s) of Deadline dates: Test requirements: Ph.D. entry: Mar 15 (application Fall GRE or MAT deadline) Tests must have been taken within the past five years.

Special requirements:

When applicable, applicants must have a minimum Test of English as a Foreign Language score of 600. The Ph.D. program in health related sciences utilizes two six-month semesters per year (January through June and July through December), which include both on- and off-campus components.

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following criteria:

- Have an earned master's degree in an academic or allied health-related field from an accredited college or university; preference will be given to applicants who have a minimum cumulative GPA of 3.3 on master's-level work (The master's degree should be in one of the departmental areas of choice of concentration.)
- Have GRE (verbal, quantitative and analytic writing) or MAT scores from within the past five years
- Have completed a graduate course in statistics with a minimum grade of B

- 4. Demonstrate a record of professional competency and success
- Articulate clear professional and educational goals and written communication skills through the submission of a written essay
- Have any additional qualifications/certifications of the individual concentrations

Prior to reviewing an application for admission, the program must receive:

- 1. A completed application form from the applicant, including:
 - a. Three letters of recommendation, two of which preferably are from sources qualified to assess the candidate's academic potential
 - A written essay that discusses career goals and the manner in which this
 doctoral program will enhance those goals and what the applicant
 expects to contribute to this program
 - c. A curriculum vitae
- Official transcripts indicating completion of baccalaureate and master's degrees (or equivalent) from an accredited college or university
- 5. GRE or MAT scores

Incomplete packages may not be reviewed. Materials are sent to the Graduate Admissions office for processing and then forwarded to the School of Allied Health Professions. Once received in the school, the application is reviewed for completeness. Applicants with incomplete files will be contacted regarding the missing materials. Incomplete files will be held in the director's office until all materials are received.

Completed folders will be sent to the respective departmental representative of the School of Allied Health Professions Doctoral Program Advisory Committee. Departments will then rank qualified applicants and, based on a review of the file, a personal interview will be scheduled at the department's discretion for the top candidates. Following the departmental ranking, all files will be returned to the director's office.

The DPAC will meet to select and recommend the incoming class. The director and the dean of the School of Allied Health Professions are responsible for the final decision

Applicants will be notified by the Graduate Admissions office regarding the admission decision and of the deadline for their acceptance of the offer and holding fee.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission/purpose

The program will provide experienced health professionals with advanced knowledge and skills so that they may assume positions in teaching, research and administration upon graduation. It offers a curriculum with an interdisciplinary core of courses with concentrations in clinical laboratory sciences, gerontology, health care outcomes research, nurse anesthesia, occupational therapy, patient counseling, physical therapy, radiation sciences and rehabilitation leadership. The

program emphasizes use of distance-learning technologies combined with traditional didactic methods. The curriculum is relevant, timely and meaningful to a multidisciplinary cohort of students.

Program goals

- The program will provide students with the ability to understand and conduct research in health-related sciences.
- The program will provide the student with the ability to analyze alternatives and develop responses in their disciplines to address the current and future challenges in health care.
- The program will provide students with the skills to educate health professionals in their discipline using current principles of teaching and curriculum development.

Student learning outcomes

Students completing this doctoral program will:

- Demonstrate the ability to conduct research, understand issues, design and execute research plans, analyze research results, and present conclusions in the area of interdisciplinary health care using the appropriate methods
- 2. Demonstrate an in-depth knowledge in the area of specialization
- 3. Exhibit competency in translating research knowledge and principles into applied practice perspectives and skills
- Display educational expertise in current principles and content of the allied health sciences and teach in the area of interdisciplinary health care practice
- Display the ability to examine current issues and future changes in the health care environment from an interdisciplinary perspective
- Exhibit knowledge and understanding of professional and ethical responsibility and conduct in the allied health professions
- Demonstrate knowledge and understanding of the importance of cultural diversity in the delivery of health care and the formulation of health policy

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must successfully complete a total of 51 credit hours (18 credit hours of common interdisciplinary core courses, 12 credit hours of research methods core courses, nine credit hours of specialty track courses and 12 credit hours of dissertation research), two comprehensive examinations, a research proposal defense and the final dissertation defense.

Continuation requirements

After admission to the Ph.D. program, the student must maintain a minimum cumulative GPA of 3.0 in all of the course work completed at VCU. A student who falls below that minimum will have one semester to remedy the deficiency. Even with an overall minimum GPA of 3.0, a student may earn no more than two (six credit hours) grades of C. Students who receive a grade of D or F will be reviewed for continuation in the program by the department of their concentrations.

Students are expected to maintain continuous enrollment while in the program. Following the completion of the core course work, students must register for at least one credit hour each fall and spring semester for continuation in the program. A student who fails to register must have advance approval to do so or will be dropped automatically from the program and must reapply for reinstatement. The maximum time to complete all of the requirements for the degree is eight calendar years from the date of entry into the program.

Course transfer or waiver

A maximum of 25 percent of the course work other than research may be transferred from another VCU program or outside institution and applied toward the Ph.D. course requirements. Transfer and waiver credit is given at the discretion of the program director after consultation with appropriate faculty members, subject to university approval. Courses taken as requirements for other degrees are not transferable. A waiver may be warranted if an equivalent course was taken. However, another course must be substituted for the waived course in order to fulfill the requisite 51 credit hours needed for degree completion.

Comprehensive examination

The purpose of the comprehensive examination is to provide a vehicle through which students can demonstrate the ability to integrate their educational experiences by adequately addressing complex questions pertinent to the current and developing knowledge of the allied health fields. Students are eligible to take each of the two comprehensive examinations upon successful completion of the appropriate core course work. The core exam must be taken within six months of completing the methods exam.

Two written examinations will be administered, one for the common interdisciplinary core and one for the research methods core. A three-member graduate faculty committee will develop and administer each exam. This committee will be made up of two members of the core advisory committee and one member appointed by the program director. Each exam will be offered once in the fall semester and once in the spring semester. Prior to completion of the semester in which students become eligible to take each exam, they must submit a formal statement of intent to the program coordinator.

Students who receive a failing grade on the initial attempt will have one opportunity to repeat each comprehensive examination. Failure to pass an exam on the second attempt will result in dismissal from the program.

The proposed curriculum is designed to take four years to complete. Students spend the first two and one-half years (six-month-long semesters) completing course work. The final year and one-half is spent developing the doctoral dissertation. Research components are present in each year of the program, and a research emphasis is present throughout the entire curriculum. Students are required to designate the area of intended research in their concentration areas in the first year.

Each of the five course-work semesters is composed of both on- and off-campus components. On-campus sessions, scheduled during the end of June and beginning of July and at the beginning of January, will employ a rather traditional mix of educational technologies (e.g., lectures, seminars and assigned reading). During the off-campus component of each semester, students pursue their studies employing a wide variety of innovative educational technologies (e.g., computer conferencing, computer-aided instruction, videotape packages and programmed instructional material), in addition to assigned readings and the completion of various assignments and projects. Upon completion of the five semesters of course work, students are required to return to campus each semester until a research proposal has been developed and successfully defended.

The program curriculum consists of a total of 51 credit hours (18 credit hours of common interdisciplinary core courses, 12 credit hours of research methods core courses, nine hours of specialty concentration courses and 12 hours of dissertation research).

Curriculum requirements

Courses	Credit hours
ALHP 701 Health Services Delivery Systems	3
ALHP 702 Finance and Economic Theory for Health Care	3
ALHP 708 Ethics and Health Care	3
ALHP 712 Curriculum and Communication Design for Health Care Professionals	3
ALHP 716 Grant Writing and Project Management in Health Related Sciences	3
ALHP 718 Health Informatics	3
ALHP 760 Biostatistical Methods for Health Related Sciences	3
ALHP 761 Health Related Sciences Research Design	3
ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research	3
ALHP 763 Clinical Outcomes Evaluation for Health Related Sciences	3
ALHP 781-009 Doctoral Seminar in Health Related Sciences	3
ALHP 792-809 Independent Study	1-4 (3
	required)
ALHP 793-009 Research Practicum	3
ALHP 890 Dissertation Seminar	3
ALHP 899-809 Dissertation Research	9

Total graduate credit hours required (minimum) 51

Sample plan of study

Courses	Credit hours
Semester 1	
ALHP 701 Health Services Delivery Systems	3
ALHP 712 Curriculum and Communication Design for Health Care Professionals	3
ALHP 760 Biostatistical Methods for Health Related Sciences	3
Semester 2	
ALHP 702 Finance and Economic Theory for Health Care	3
ALHP 761 Health Related Sciences Research Design	3
ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research	3
Semester 3	
ALHP 718 Health Informatics	3
ALHP 763 Clinical Outcomes Evaluation for Health Related Sciences	3
ALHP 781-009 Doctoral Seminar in Health Related Sciences	3
Methods comprehensive exam	
Semester 4	
ALHP 708 Ethics and Health Care	3
ALHP 716 Grant Writing and Project Management in Health Related Sciences	3
ALHP 890 Dissertation Seminar	3
Core comprehensive exam	
Semester 5	
ALHP 792-809 Independent Study	1-4 (3
The state of the s	required)
ALHP 793-009 Research Practicum	3
ALHP 899-809 Dissertation Research	1-9 (9
	required)
Semester 6	
ALHP 899-809 Dissertation Research	variable
Semester 7	
ALHP 899-809 Dissertation Research	variable
Semester 8	
ALHP 899-809 Dissertation Research	variable
Total graduate credit hours required (minimum)	51
Degree candidacy requirements	
A graduate student admitted to a program or concentration requiring research project, work of art, thesis or dissertation, must qualify for master's or doctoral status according to the degree candidacy require	continuing

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Admission to candidacy

Students are eligible to begin their dissertations upon written certification by the program director and associate dean of the Graduate School that all predissertation/research requirements, including the comprehensive examinations, have been satisfied and that the student is prepared to proceed with the dissertation/research project. Copies of the certification will be forwarded to the student, the student's formal program adviser and the dean of the School of Allied Health Professions. After admission to candidacy, students will proceed to propose, complete and defend their dissertations or three journal articles research requirement.

Enrollment requirement

Students are required to maintain continuous enrollment in ALHP 899 Dissertation Research until completion of the requirements, including the defense process.

Dissertation and published research requirements

Dissertation/research committee

After successful completion of the comprehensive exam, the student nominates a dissertation/research committee, and the dissertation/research director submits the nominations in writing to the program director. Such committees will consist of a minimum of four graduate faculty members, one of whom will be outside the student's concentration area. The program director will provide written approval of the dissertation/research committee and clear such appointments with the appropriate administrative officials.

Dissertation/research standards

The dissertation or publishable research articles must represent independent research and should be based on an original research question or hypothesis. Generally, dissertations or publishable research articles will demonstrate the student's ability with empirical research, adhering to canons of (1) logic in conceptualization and design, (2) valid and reliable measurement, (3) appropriate analytic technique and (4) appropriate interpretation of results. Studies should be based on a formal theoretical or conceptually explicit framework for investigating a question or testing a hypothesis relevant to the allied health field.

Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Program completion requirements

The doctor of philosophy degree is awarded after (1) the minimum 51 credit hours of course work are completed, (2) comprehensive exams are passed, and (3) either a dissertation is written and defended orally or three first-author articles of publishable quality (on research undertaken by the doctoral candidate once enrolled in the program) are written and defended orally. The journal articles will be scrutinized for quality of scholarship by an internal research committee headed by the student's research adviser. All three articles must be approved by the internal research committee prior to submission.

Other information

Student handbook

A student handbook will be made available to all admitted students in their cohort organizations in Blackboard.

Facilities

The administrative offices for the program are located on the MCV Campus, at 1200 E. Broad St. (West Hospital, First Floor, East Wing).

Advising

Upon admission to the program, students will be assigned an interim adviser to guide them through the core courses and assist them as they consider their areas of research. All program advisers will have an earned doctorate and be members of the university's graduate faculty.

Students may change their interim advisers as their programs of study and interests evolve, if approved by the program director. Although discouraged, some students may wish to switch their area of concentration (changing from the department through which they were initially admitted to the program). Students who want to change concentration areas must petition the doctoral program director. The petition must be approved by the program director, the DPAC and the appropriate department chair. There is no guarantee that the applicant will be accepted into the new concentration.

After successful completion of the comprehensive examinations, students will choose a dissertation chair that will serve as adviser and guide them through the research/dissertation process.

Computer requirements

All students admitted to the program must have a personal computer manufactured within the past two years and access to a high-speed Internet connection.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in physical therapy

Graduate program director

Paula K. Kupstas, Ph.D. Associate professor and director pkupstas@vcu.edu (804) 828-1914

Additional contact

Monica L. White Program coordinator mlwhite1@vcu.edu (804) 828-3273

Program website: sahp.vcu.edu/phd

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in clinical laboratory sciences

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in gerontology

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in health care outcomes research

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in nurse anesthesia

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in occupational therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in patient counseling

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in rehabilitation leadership

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in radiation sciences

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Health Related physical thera	Sciences, Doctor of Phil py	osophy (Ph.D.) with a co	oncentration in
Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements:
	Fall	Mar 15 (application deadline)	GRE or MAT
			Tests must have been taken within the past five years.

Special requirements:

When applicable, applicants must have a minimum Test of English as a Foreign Language score of 600. The Ph.D. program in health related sciences utilizes two six-month semesters per year (January through June and July through December), which include both on- and off-campus components.

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following criteria:

- Have an earned master's degree in an academic or allied health-related field from an accredited college or university; preference will be given to applicants who have a minimum cumulative GPA of 3.3 on master's-level work (The master's degree should be in one of the departmental areas of choice of concentration.)
- Have GRE (verbal, quantitative and analytic writing) or MAT scores from within the past five years
- 3. Have completed a graduate course in statistics with a minimum grade of B
- 4. Demonstrate a record of professional competency and success
- Articulate clear professional and educational goals and written communication skills through the submission of a written essay
- 6. Have any additional qualifications/certifications of the individual concentrations

Prior to reviewing an application for admission, the program must receive:

- 1. A completed application form from the applicant, including:
 - a. Three letters of recommendation, two of which preferably are from sources qualified to assess the candidate's academic potential
 - A written essay that discusses career goals and the manner in which this
 doctoral program will enhance those goals and what the applicant
 expects to contribute to this program
 - c. A curriculum vitae
- 4. Official transcripts indicating completion of baccalaureate and master's degrees (or equivalent) from an accredited college or university
- 5. GRE or MAT scores

Incomplete packages may not be reviewed. Materials are sent to the Graduate Admissions office for processing and then forwarded to the School of Allied Health Professions. Once received in the school, the application is reviewed for completeness. Applicants with incomplete files will be contacted regarding the missing materials. Incomplete files will be held in the director's office until all materials are received.

Completed folders will be sent to the respective departmental representative of the School of Allied Health Professions Doctoral Program Advisory Committee. Departments will then rank qualified applicants and, based on a review of the file, a personal interview will be scheduled at the department's discretion for the top candidates. Following the departmental ranking, all files will be returned to the director's office.

The DPAC will meet to select and recommend the incoming class. The director and the dean of the School of Allied Health Professions are responsible for the final decision.

Applicants will be notified by the Graduate Admissions office regarding the admission decision and of the deadline for their acceptance of the offer and holding fee.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program mission/purpose

The program will provide experienced health professionals with advanced knowledge and skills so that they may assume positions in teaching, research and administration upon graduation. It offers a curriculum with an interdisciplinary core of courses with concentrations in clinical laboratory sciences, gerontology, health care outcomes research, nurse anesthesia, occupational therapy, patient counseling, physical therapy, radiation sciences and rehabilitation leadership. The program emphasizes use of distance-learning technologies combined with traditional didactic methods. The curriculum is relevant, timely and meaningful to a multidisciplinary cohort of students.

Program goals

- The program will provide students with the ability to understand and conduct research in health-related sciences.
- The program will provide the student with the ability to analyze alternatives and develop responses in their disciplines to address the current and future challenges in health care.
- The program will provide students with the skills to educate health professionals in their discipline using current principles of teaching and curriculum development.

Student learning outcomes

Students completing this doctoral program will:

- Demonstrate the ability to conduct research, understand issues, design and execute research plans, analyze research results, and present conclusions in the area of interdisciplinary health care using the appropriate methods
- 2. Demonstrate an in-depth knowledge in the area of specialization
- Exhibit competency in translating research knowledge and principles into applied practice perspectives and skills
- Display educational expertise in current principles and content of the allied health sciences and teach in the area of interdisciplinary health care practice
- 5. Display the ability to examine current issues and future changes in the health care environment from an interdisciplinary perspective
- Exhibit knowledge and understanding of professional and ethical responsibility and conduct in the allied health professions
- Demonstrate knowledge and understanding of the importance of cultural diversity in the delivery of health care and the formulation of health policy

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must successfully complete a total of 51 credit hours (18 credit hours of common

interdisciplinary core courses, 12 credit hours of research methods core courses, nine credit hours of specialty track courses and 12 credit hours of dissertation research), two comprehensive examinations, a research proposal defense and the final dissertation defense.

Continuation requirements

After admission to the Ph.D. program, the student must maintain a minimum cumulative GPA of 3.0 in all of the course work completed at VCU. A student who falls below that minimum will have one semester to remedy the deficiency. Even with an overall minimum GPA of 3.0, a student may earn no more than two (six credit hours) grades of C. Students who receive a grade of D or F will be reviewed for continuation in the program by the department of their concentrations.

Students are expected to maintain continuous enrollment while in the program. Following the completion of the core course work, students must register for at least one credit hour each fall and spring semester for continuation in the program. A student who fails to register must have advance approval to do so or will be dropped automatically from the program and must reapply for reinstatement. The maximum time to complete all of the requirements for the degree is eight calendar years from the date of entry into the program.

Course transfer or waiver

A maximum of 25 percent of the course work other than research may be transferred from another VCU program or outside institution and applied toward the Ph.D. course requirements. Transfer and waiver credit is given at the discretion of the program director after consultation with appropriate faculty members, subject to university approval. Courses taken as requirements for other degrees are not transferable. A waiver may be warranted if an equivalent course was taken. However, another course must be substituted for the waived course in order to fulfill the requisite 51 credit hours needed for degree completion.

Comprehensive examination

The purpose of the comprehensive examination is to provide a vehicle through which students can demonstrate the ability to integrate their educational experiences by adequately addressing complex questions pertinent to the current and developing knowledge of the allied health fields. Students are eligible to take each of the two comprehensive examinations upon successful completion of the appropriate core course work. The core exam must be taken within six months of completing the methods exam.

Two written examinations will be administered, one for the common interdisciplinary core and one for the research methods core. A three-member graduate faculty committee will develop and administer each exam. This committee will be made up of two members of the core advisory committee and one member appointed by the program director. Each exam will be offered once in the fall semester and once in the spring semester. Prior to completion of the semester in which students become eligible to take each exam, they must submit a formal statement of intent to the program coordinator.

Students who receive a failing grade on the initial attempt will have one opportunity to repeat each comprehensive examination. Failure to pass an exam on the second attempt will result in dismissal from the program.

The proposed curriculum is designed to take four years to complete. Students spend the first two and one-half years (six-month-long semesters) completing course work. The final year and one-half is spent developing the doctoral dissertation. Research components are present in each year of the program, and a research emphasis is present throughout the entire curriculum. Students are required to designate the area of intended research in their concentration areas in the first year.

Each of the five course-work semesters is composed of both on- and off-campus components. On-campus sessions, scheduled during the end of June and beginning of July and at the beginning of January, will employ a rather traditional mix of educational technologies (e.g., lectures, seminars and assigned reading). During the off-campus component of each semester, students pursue their studies employing a wide variety of innovative educational technologies (e.g., computer conferencing, computer-aided instruction, videotape packages and programmed instructional material), in addition to assigned readings and the completion of various assignments and projects. Upon completion of the five semesters of course work, students are required to return to campus each semester until a research proposal has been developed and successfully defended.

The program curriculum consists of a total of 51 credit hours (18 credit hours of common interdisciplinary core courses, 12 credit hours of research methods core

courses, nine hours of specialty concentration courses and 12 hours of dissertation research).

Curriculum requirements

Core comprehensive exam

Curriculum requirements	
Courses	Credit hours
ALHP 701 Health Services Delivery Systems	3
ALHP 702 Finance and Economic Theory for Health Care	3
ALHP 708 Ethics and Health Care	3
ALHP 712 Curriculum and Communication Design for Health Care Professionals	-
ALHP 716 Grant Writing and Project Management in Health Related Sciences	3
ALHP 718 Health Informatics	3
ALHP 760 Biostatistical Methods for Health Related Sciences	3
ALHP 761 Health Related Sciences Research Design	3
ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research	3
ALHP 763 Clinical Outcomes Evaluation for Health Related Sciences	3
ALHP 781-006 Doctoral Seminar in Health Related Sciences	3
ALHP 792-806 Independent Study	1-4 (3
	required)
ALHP 793-006 Research Practicum	3
ALHP 890 Dissertation Seminar	3
ALHP 899-806 Dissertation Research	9
Total graduate credit hours required (minimum)	51
Sample plan of study	
Courses	Credit hours
Semester 1	
Semester 1 ALHP 701 Health Services Delivery Systems ALHP 712 Curriculum and Communication Design for Health Care	hours
Semester 1 ALHP 701 Health Services Delivery Systems	hours
Semester 1 ALHP 701 Health Services Delivery Systems ALHP 712 Curriculum and Communication Design for Health Care Professionals	hours 3 3
Semester 1 ALHP 701 Health Services Delivery Systems ALHP 712 Curriculum and Communication Design for Health Care Professionals ALHP 760 Biostatistical Methods for Health Related Sciences Semester 2	hours 3 3
Semester 1 ALHP 701 Health Services Delivery Systems ALHP 712 Curriculum and Communication Design for Health Care Professionals ALHP 760 Biostatistical Methods for Health Related Sciences Semester 2 ALHP 702 Finance and Economic Theory for Health Care	hours 3 3 3
Semester 1 ALHP 701 Health Services Delivery Systems ALHP 712 Curriculum and Communication Design for Health Care Professionals ALHP 760 Biostatistical Methods for Health Related Sciences Semester 2	hours 3 3 3
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Semester 1 ALHP 701 Health Services Delivery Systems ALHP 712 Curriculum and Communication Design for Health Care Professionals ALHP 760 Biostatistical Methods for Health Related Sciences Semester 2 ALHP 702 Finance and Economic Theory for Health Care ALHP 761 Health Related Sciences Research Design ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research Semester 3 ALHP 718 Health Informatics ALHP 763 Clinical Outcomes Evaluation for Health Related Sciences ALHP 781-006 Doctoral Seminar in Health Related Sciences Methods comprehensive exam Semester 4 ALHP 708 Ethics and Health Care ALHP 716 Grant Writing and Project Management in Health	hours 3 3 3 3 3 3 3 3 3 3

Semester 5	
ALHP 792-806 Independent Study	1-4 (3 required)
ALHP 793-006 Research Practicum	3
ALHP 899-806 Dissertation Research	1-9 (9 required)
Semester 6	

ALHP 899-806 Dissertation Research variable

Semester 7

ALHP 899-806 Dissertation Research variable

Semester 8

ALHP 899-806 Dissertation Research variable

> Total graduate credit hours required (minimum) 51

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Degree candidacy requirements



Admission to candidacy

Students are eligible to begin their dissertations upon written certification by the program director and associate dean of the Graduate School that all predissertation/research requirements, including the comprehensive examinations, have been satisfied and that the student is prepared to proceed with the dissertation/research project. Copies of the certification will be forwarded to the student, the student's formal program adviser and the dean of the School of Allied Health Professions. After admission to candidacy, students will proceed to propose, complete and defend their dissertations or three journal articles research requirement.

Enrollment requirement

Students are required to maintain continuous enrollment in ALHP 899 Dissertation Research until completion of the requirements, including the defense

Dissertation and published research requirements

Dissertation/research committee

After successful completion of the comprehensive exam, the student nominates a dissertation/research committee, and the dissertation/research director submits the nominations in writing to the program director. Such committees will consist of a minimum of four graduate faculty members, one of whom will be outside the student's concentration area. The program director will provide written approval of the dissertation/research committee and clear such appointments with the appropriate administrative officials.

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The dissertation or publishable research articles must represent independent research and should be based on an original research question or hypothesis. Generally, dissertations or publishable research articles will demonstrate the student's ability with empirical research, adhering to canons of (1) logic in conceptualization and design, (2) valid and reliable measurement, (3) appropriate analytic technique and (4) appropriate interpretation of results. Studies should be

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Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Program completion requirements

The doctor of philosophy degree is awarded after (1) the minimum 51 credit hours of course work are completed, (2) comprehensive exams are passed, and (3) either a dissertation is written and defended orally or three first-author articles of publishable quality (on research undertaken by the doctoral candidate once enrolled in the program) are written and defended orally. The journal articles will be scrutinized for quality of scholarship by an internal research committee headed by the student's research adviser. All three articles must be approved by the internal research committee prior to submission.

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After successful completion of the comprehensive examinations, students will choose a dissertation chair that will serve as adviser and guide them through the research/dissertation process.

Computer requirements

All students admitted to the program must have a personal computer manufactured within the past two years and access to a high-speed Internet connection.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in radiation sciences

Graduate program director

Paula K. Kupstas, Ph.D. Associate professor and director pkupstas@vcu.edu (804) 828-1914

Additional contact

Monica L. White Program coordinator

mlwhite1@vcu.edu

(804) 828-3273

Program website: sahp.vcu.edu/phd

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in clinical laboratory sciences

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in gerontology

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in health care outcomes research

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in nurse anesthesia

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in occupational therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in patient counseling

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in physical therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in rehabilitation leadership

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in radiation sciences			
Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements:
	Fall	Mar 15 (application deadline)	GRE or MAT
			Tests must have been taken within the past five years.

Special requirements

When applicable, applicants must have a minimum Test of English as a Foreign Language score of 600. The Ph.D. program in health related sciences utilizes two six-month semesters per year (January through June and July through December), which include both on- and off-campus components.

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following criteria:

- Have an earned master's degree in an academic or allied health-related field from an accredited college or university; preference will be given to applicants who have a minimum cumulative GPA of 3.3 on master's-level work (The master's degree should be in one of the departmental areas of choice of concentration.)
- 2. Have GRE (verbal, quantitative and analytic writing) or MAT scores from within the past five years
- 3. Have completed a graduate course in statistics with a minimum grade of B
- 4. Demonstrate a record of professional competency and success
- Articulate clear professional and educational goals and written communication skills through the submission of a written essay
- Have any additional qualifications/certifications of the individual concentrations

Prior to reviewing an application for admission, the program must receive:

- 1. A completed application form from the applicant, including:
 - a. Three letters of recommendation, two of which preferably are from sources qualified to assess the candidate's academic potential
 - A written essay that discusses career goals and the manner in which this
 doctoral program will enhance those goals and what the applicant
 expects to contribute to this program
 - c. A curriculum vitae
- Official transcripts indicating completion of baccalaureate and master's degrees (or equivalent) from an accredited college or university
- 5. GRE or MAT scores

Incomplete packages may not be reviewed. Materials are sent to the Graduate Admissions office for processing and then forwarded to the School of Allied Health Professions. Once received in the school, the application is reviewed for completeness. Applicants with incomplete files will be contacted regarding the missing materials. Incomplete files will be held in the director's office until all materials are received.

Completed folders will be sent to the respective departmental representative of the School of Allied Health Professions Doctoral Program Advisory Committee. Departments will then rank qualified applicants and, based on a review of the file, a personal interview will be scheduled at the department's discretion for the top candidates. Following the departmental ranking, all files will be returned to the director's office.

The DPAC will meet to select and recommend the incoming class. The director and the dean of the School of Allied Health Professions are responsible for the final decision.

Applicants will be notified by the Graduate Admissions office regarding the admission decision and of the deadline for their acceptance of the offer and holding fee.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission/purpose

The program will provide experienced health professionals with advanced knowledge and skills so that they may assume positions in teaching, research and administration upon graduation. It offers a curriculum with an interdisciplinary core of courses with concentrations in clinical laboratory sciences, gerontology, health care outcomes research, nurse anesthesia, occupational therapy, patient counseling, physical therapy, radiation sciences and rehabilitation leadership. The program emphasizes use of distance-learning technologies combined with traditional didactic methods. The curriculum is relevant, timely and meaningful to a multidisciplinary cohort of students.

Program goals

- The program will provide students with the ability to understand and conduct research in health-related sciences.
- The program will provide the student with the ability to analyze alternatives and develop responses in their disciplines to address the current and future challenges in health care.
- The program will provide students with the skills to educate health professionals in their discipline using current principles of teaching and curriculum development.

Student learning outcomes

Students completing this doctoral program will:

- Demonstrate the ability to conduct research, understand issues, design and execute research plans, analyze research results, and present conclusions in the area of interdisciplinary health care using the appropriate methods
- 2. Demonstrate an in-depth knowledge in the area of specialization
- Exhibit competency in translating research knowledge and principles into applied practice perspectives and skills
- Display educational expertise in current principles and content of the allied health sciences and teach in the area of interdisciplinary health care practice
- Display the ability to examine current issues and future changes in the health care environment from an interdisciplinary perspective
- Exhibit knowledge and understanding of professional and ethical responsibility and conduct in the allied health professions
- Demonstrate knowledge and understanding of the importance of cultural diversity in the delivery of health care and the formulation of health policy

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must successfully complete a total of 51 credit hours (18 credit hours of common interdisciplinary core courses, 12 credit hours of research methods core courses, nine credit hours of specialty track courses and 12 credit hours of dissertation research), two comprehensive examinations, a research proposal defense and the final dissertation defense.

Continuation requirements

After admission to the Ph.D. program, the student must maintain a minimum cumulative GPA of 3.0 in all of the course work completed at VCU. A student who falls below that minimum will have one semester to remedy the deficiency. Even with an overall minimum GPA of 3.0, a student may earn no more than two (six credit hours) grades of C. Students who receive a grade of D or F will be reviewed for continuation in the program by the department of their concentrations.

Students are expected to maintain continuous enrollment while in the program. Following the completion of the core course work, students must register for at least one credit hour each fall and spring semester for continuation in the program. A student who fails to register must have advance approval to do so or will be dropped automatically from the program and must reapply for reinstatement. The maximum time to complete all of the requirements for the degree is eight calendar years from the date of entry into the program.

Course transfer or waiver

A maximum of 25 percent of the course work other than research may be transferred from another VCU program or outside institution and applied toward the Ph.D. course requirements. Transfer and waiver credit is given at the discretion of the program director after consultation with appropriate faculty members, subject to university approval. Courses taken as requirements for other degrees are not transferable. A waiver may be warranted if an equivalent course was taken. However, another course must be substituted for the waived course in order to fulfill the requisite 51 credit hours needed for degree completion.

Comprehensive examination

The purpose of the comprehensive examination is to provide a vehicle through which students can demonstrate the ability to integrate their educational experiences by adequately addressing complex questions pertinent to the current and developing knowledge of the allied health fields. Students are eligible to take each of the two comprehensive examinations upon successful completion of the appropriate core course work. The core exam must be taken within six months of completing the methods exam.

Two written examinations will be administered, one for the common interdisciplinary core and one for the research methods core. A three-member graduate faculty committee will develop and administer each exam. This committee will be made up of two members of the core advisory committee and one member appointed by the program director. Each exam will be offered once in the fall semester and once in the spring semester. Prior to completion of the semester in which students become eligible to take each exam, they must submit a formal statement of intent to the program coordinator.

Students who receive a failing grade on the initial attempt will have one opportunity to repeat each comprehensive examination. Failure to pass an exam on the second attempt will result in dismissal from the program.

The proposed curriculum is designed to take four years to complete. Students spend the first two and one-half years (six-month-long semesters) completing course work. The final year and one-half is spent developing the doctoral dissertation. Research components are present in each year of the program, and a research emphasis is present throughout the entire curriculum. Students are required to designate the area of intended research in their concentration areas in the first year.

Each of the five course-work semesters is composed of both on- and off-campus components. On-campus sessions, scheduled during the end of June and beginning of July and at the beginning of January, will employ a rather traditional mix of educational technologies (e.g., lectures, seminars and assigned reading). During the off-campus component of each semester, students pursue their studies employing a wide variety of innovative educational technologies (e.g., computer conferencing, computer-aided instruction, videotape packages and programmed instructional material), in addition to assigned readings and the completion of various assignments and projects. Upon completion of the five semesters of course work, students are required to return to campus each semester until a research proposal has been developed and successfully defended.

The program curriculum consists of a total of 51 credit hours (18 credit hours of common interdisciplinary core courses, 12 credit hours of research methods core courses, nine hours of specialty concentration courses and 12 hours of dissertation research).

Curriculum requirements

Courses	Credit hours
ALHP 701 Health Services Delivery Systems	3
ALHP 702 Finance and Economic Theory for Health Care	3
ALHP 708 Ethics and Health Care	3
ALHP 712 Curriculum and Communication Design for Health Care Professionals	3
ALHP 716 Grant Writing and Project Management in Health Related Sciences	3
ALHP 718 Health Informatics	3
ALHP 760 Biostatistical Methods for Health Related Sciences	3
ALHP 761 Health Related Sciences Research Design	3
ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research	3
ALHP 763 Clinical Outcomes Evaluation for Health Related Sciences	3
ALHP 781-007 Doctoral Seminar in Health Related Sciences	3
ALHP 792-807 Independent Study	1-4 (3 required)
ALHP 793-007 Research Practicum	3
ALHP 890 Dissertation Seminar	3
ALHP 899-807 Dissertation Research	9
Total graduate credit hours required (minimum)	51

Sample plan of study

Courses		Credit hours
Semester 1		
ALHP 701 Health Services Delivery Systems	3	
ALHP 712 Curriculum and Communication Design for Health Care	3	
Professionals		
ALHP 760 Biostatistical Methods for Health Related Sciences	3	
Semester 2		
ALHP 702 Finance and Economic Theory for Health Care	3	
ALHP 761 Health Related Sciences Research Design	3	

ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research	3
Semester 3	
ALHP 718 Health Informatics	3
ALHP 763 Clinical Outcomes Evaluation for Health Related Sciences	3
ALHP 781-007 Doctoral Seminar in Health Related Sciences	3
Methods comprehensive exam	
Semester 4	
ALHP 708 Ethics and Health Care	3
ALHP 716 Grant Writing and Project Management in Health Related Sciences	3
ALHP 890 Dissertation Seminar	3
Core comprehensive exam	
Semester 5	
ALHP 792-807 Independent Study	1-4 (3 required)
ALHP 793-007 Research Practicum	3
ALHP 899-807 Dissertation Research	1-9 (9 required)
Semester 6	
ALHP 899-807 Dissertation Research	variable
Semester 7	
ALHP 899-807 Dissertation Research	variable
Semester 8	
ALHP 899-807 Dissertation Research	variable

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Total graduate credit hours required (minimum)

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Admission to candidacy

Students are eligible to begin their dissertations upon written certification by the program director and associate dean of the Graduate School that all predissertation/research requirements, including the comprehensive examinations, have been satisfied and that the student is prepared to proceed with the dissertation/research project. Copies of the certification will be forwarded to the student, the student's formal program adviser and the dean of the School of Allied Health Professions. After admission to candidacy, students will proceed to propose, complete and defend their dissertations or three journal articles research requirement.

Enrollment requirement

Students are required to maintain continuous enrollment in ALHP 899 Dissertation Research until completion of the requirements, including the defense process.

Dissertation and published research requirements

Dissertation/research committee

After successful completion of the comprehensive exam, the student nominates a dissertation/research committee, and the dissertation/research director submits the nominations in writing to the program director. Such committees will consist of a minimum of four graduate faculty members, one of whom will be outside the student's concentration area. The program director will provide written approval of the dissertation/research committee and clear such appointments with the appropriate administrative officials.

Dissertation/research standards

The dissertation or publishable research articles must represent independent research and should be based on an original research question or hypothesis. Generally, dissertations or publishable research articles will demonstrate the student's ability with empirical research, adhering to canons of (1) logic in conceptualization and design, (2) valid and reliable measurement, (3) appropriate analytic technique and (4) appropriate interpretation of results. Studies should be based on a formal theoretical or conceptually explicit framework for investigating a question or testing a hypothesis relevant to the allied health field.

Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Program completion requirements

The doctor of philosophy degree is awarded after (1) the minimum 51 credit hours of course work are completed, (2) comprehensive exams are passed, and (3) either a dissertation is written and defended orally or three first-author articles of publishable quality (on research undertaken by the doctoral candidate once enrolled in the program) are written and defended orally. The journal articles will be scrutinized for quality of scholarship by an internal research committee headed by the student's research adviser. All three articles must be approved by the internal research committee prior to submission.

Other information

Student handbook

A student handbook will be made available to all admitted students in their cohort organizations in Blackboard.

Facilities

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The administrative offices for the program are located on the MCV Campus, at 1200 E. Broad St. (West Hospital, First Floor, East Wing).

Advising

Upon admission to the program, students will be assigned an interim adviser to guide them through the core courses and assist them as they consider their areas of research. All program advisers will have an earned doctorate and be members of the university's graduate faculty.

Students may change their interim advisers as their programs of study and interests evolve, if approved by the program director. Although discouraged, some students may wish to switch their area of concentration (changing from the department through which they were initially admitted to the program). Students who want to change concentration areas must petition the doctoral program director. The petition must be approved by the program director, the DPAC and the appropriate department chair. There is no guarantee that the applicant will be accepted into the new concentration.

After successful completion of the comprehensive examinations, students will choose a dissertation chair that will serve as adviser and guide them through the research/dissertation process.

Computer requirements

All students admitted to the program must have a personal computer manufactured within the past two years and access to a high-speed Internet connection.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in rehabilitation leadership

Graduate program director

Paula K. Kupstas, Ph.D. Associate professor and director pkupstas@vcu.edu (804) 828-1914

Additional contact

Monica L. White Program coordinator mlwhite1@vcu.edu (804) 828-3273

Program website: sahp.vcu.edu/phd

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in clinical laboratory sciences

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in gerontology

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in health care outcomes research

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in nurse anesthesia

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in occupational therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in patient counseling

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in physical therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in radiation sciences

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in rehabilitation leadership			
Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements:
	Fall	Mar 15 (application deadline)	GRE or MAT
			Tests must have been taken within the past five years.

When applicable, applicants must have a minimum Test of English as a Foreign Language score of 600. The Ph.D. program in health related sciences utilizes two six-month semesters per year (January through June and July through December), which include both on- and off-campus components.

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following criteria:

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- 4. Demonstrate a record of professional competency and success
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- 1. A completed application form from the applicant, including:
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 - b. A written essay that discusses career goals and the manner in which this doctoral program will enhance those goals and what the applicant expects to contribute to this program
 - A curriculum vitae
- Official transcripts indicating completion of baccalaureate and master's degrees (or equivalent) from an accredited college or university
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Program mission/purpose

The program will provide experienced health professionals with advanced knowledge and skills so that they may assume positions in teaching, research and administration upon graduation. It offers a curriculum with an interdisciplinary core of courses with concentrations in clinical laboratory sciences, gerontology, health care outcomes research, nurse anesthesia, occupational therapy, patient counseling, physical therapy, radiation sciences and rehabilitation leadership. The program emphasizes use of distance-learning technologies combined with traditional didactic methods. The curriculum is relevant, timely and meaningful to a multidisciplinary cohort of students.

Program goals

- The program will provide students with the ability to understand and conduct research in health-related sciences.
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Student learning outcomes

Students completing this doctoral program will:

- Demonstrate the ability to conduct research, understand issues, design and execute research plans, analyze research results, and present conclusions in the area of interdisciplinary health care using the appropriate methods
- 2. Demonstrate an in-depth knowledge in the area of specialization
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- Display the ability to examine current issues and future changes in the health care environment from an interdisciplinary perspective
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Degree requirements

In addition to general VCU Graduate School graduation requirements, students must successfully complete a total of 51 credit hours (18 credit hours of common interdisciplinary core courses, 12 credit hours of research methods core courses, nine credit hours of specialty track courses and 12 credit hours of dissertation research), two comprehensive examinations, a research proposal defense and the final dissertation defense.

Continuation requirements

After admission to the Ph.D. program, the student must maintain a minimum cumulative GPA of 3.0 in all of the course work completed at VCU. A student who falls below that minimum will have one semester to remedy the deficiency. Even with an overall minimum GPA of 3.0, a student may earn no more than two (six credit hours) grades of C. Students who receive a grade of D or F will be reviewed for continuation in the program by the department of their concentrations.

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Course transfer or waiver

A maximum of 25 percent of the course work other than research may be transferred from another VCU program or outside institution and applied toward the Ph.D. course requirements. Transfer and waiver credit is given at the discretion of the program director after consultation with appropriate faculty members, subject to university approval. Courses taken as requirements for other degrees are not transferable. A waiver may be warranted if an equivalent course was taken. However, another course must be substituted for the waived course in order to fulfill the requisite 51 credit hours needed for degree completion.

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The program curriculum consists of a total of 51 credit hours (18 credit hours of common interdisciplinary core courses, 12 credit hours of research methods core courses, nine hours of specialty concentration courses and 12 hours of dissertation research).

Curriculum requirements

Courses	Credit hours
ALHP 701 Health Services Delivery Systems	3
ALHP 702 Finance and Economic Theory for Health Care	3
ALHP 708 Ethics and Health Care	3
ALHP 712 Curriculum and Communication Design for Health Care Professionals	3
ALHP 716 Grant Writing and Project Management in Health Related Sciences	3
ALHP 718 Health Informatics	3
ALHP 760 Biostatistical Methods for Health Related Sciences	3
ALHP 761 Health Related Sciences Research Design	3
ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research	3
ALHP 763 Clinical Outcomes Evaluation for Health Related Sciences	3
ALHP 781-008 Doctoral Seminar in Health Related Sciences	3
ALHP 792-808 Independent Study	1-4 (3 required)
ALHP 793-008 Research Practicum	3
ALHP 890 Dissertation Seminar	3
ALHP 899-808 Dissertation Research	9

Total graduate credit hours required (minimum)

51

Sample plan of study

Courses	Credit hours
Semester 1	
ALHP 701 Health Services Delivery Systems	3
ALHP 712 Curriculum and Communication Design for Health Care Professionals	3
ALHP 760 Biostatistical Methods for Health Related Sciences	3
Semester 2	
ALHP 702 Finance and Economic Theory for Health Care	3
ALHP 761 Health Related Sciences Research Design	3
ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research	3
Semester 3	
ALHP 718 Health Informatics	3
ALHP 763 Clinical Outcomes Evaluation for Health Related Sciences	3
ALHP 781-008 Doctoral Seminar in Health Related Sciences	3
Methods comprehensive exam	
Semester 4	
ALHP 708 Ethics and Health Care	3
ALHP 716 Grant Writing and Project Management in Health Related Sciences	3
ALHP 890 Dissertation Seminar	3
Core comprehensive exam	
Semester 5	
1	1-4 (3 required)
ALHP 793-008 Research Practicum	3
ALHP 899-808 Dissertation Research	1-9 (9
	required)
Semester 6	
	variable
The opposition research	variable
Semester 7	
ALHP 899-808 Dissertation Research	variable
Semester 8	
ALHP 899-808 Dissertation Research	variable

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Total graduate credit hours required (minimum)

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Admission to candidacy

Students are eligible to begin their dissertations upon written certification by the program director and associate dean of the Graduate School that all predissertation/research requirements, including the comprehensive examinations, have been satisfied and that the student is prepared to proceed with the dissertation/research project. Copies of the certification will be forwarded to the student, the student's formal program adviser and the dean of the School of Allied Health Professions. After admission to candidacy, students will proceed to propose, complete and defend their dissertations or three journal articles research requirement.

Enrollment requirement

Students are required to maintain continuous enrollment in ALHP 899
Dissertation Research until completion of the requirements, including the defense

Dissertation and published research requirements

Dissertation/research committee

After successful completion of the comprehensive exam, the student nominates a dissertation/research committee, and the dissertation/research director submits the nominations in writing to the program director. Such committees will consist of a minimum of four graduate faculty members, one of whom will be outside the student's concentration area. The program director will provide written approval of the dissertation/research committee and clear such appointments with the appropriate administrative officials.

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The dissertation or publishable research articles must represent independent research and should be based on an original research question or hypothesis. Generally, dissertations or publishable research articles will demonstrate the student's ability with empirical research, adhering to canons of (1) logic in conceptualization and design, (2) valid and reliable measurement, (3) appropriate analytic technique and (4) appropriate interpretation of results. Studies should be based on a formal theoretical or conceptually explicit framework for investigating a question or testing a hypothesis relevant to the allied health field.

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Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Program completion requirements

The doctor of philosophy degree is awarded after (1) the minimum 51 credit hours of course work are completed, (2) comprehensive exams are passed, and (3) either a dissertation is written and defended orally or three first-author articles of publishable quality (on research undertaken by the doctoral candidate once enrolled in the program) are written and defended orally. The journal articles will be scrutinized for quality of scholarship by an internal research committee headed by the student's research adviser. All three articles must be approved by the internal research committee prior to submission.

Other information

Student handbook

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A student handbook will be made available to all admitted students in their cohort organizations in Blackboard.

Facilities

The administrative offices for the program are located on the MCV Campus, at 1200 E. Broad St. (West Hospital, First Floor, East Wing).

Advising

Upon admission to the program, students will be assigned an interim adviser to guide them through the core courses and assist them as they consider their areas of research. All program advisers will have an earned doctorate and be members of the university's graduate faculty.

Students may change their interim advisers as their programs of study and interests evolve, if approved by the program director. Although discouraged, some students may wish to switch their area of concentration (changing from the department through which they were initially admitted to the program). Students who want to change concentration areas must petition the doctoral program director. The petition must be approved by the program director, the DPAC and the appropriate department chair. There is no guarantee that the applicant will be accepted into the new concentration.

After successful completion of the comprehensive examinations, students will choose a dissertation chair that will serve as adviser and guide them through the research/dissertation process.

Computer requirements

All students admitted to the program must have a personal computer manufactured within the past two years and access to a high-speed Internet connection.

Nurse Anesthesia Practice, Doctor of (D.N.A.P.)/Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in nurse anesthesia [sequential degrees]

Graduate program director

Paula K. Kupstas, Ph.D. Associate professor and director pkupstas@vcu.edu (804) 828-1914

Additional contact

Monica L. White Program coordinator mlwhite1@vcu.edu (804) 828-3273

Program website: sahp.vcu.edu/phd

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in clinical laboratory sciences

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in gerontology

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in health care outcomes research

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in nurse anesthesia

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in occupational therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in patient counseling

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in physical therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in radiation sciences

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in rehabilitation leadership

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Health Related Sciences, Doctor of Philosophy (Ph.D.), Doctor of Nurse Anesthesia Practice (D.N.A.P.) to health related sciences sequential degree concentration

Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements:
	Fall (begins end of Jun)	Mar 15 (application deadline)	GRE or MAT
	,	,	Tests must have been taken within the past five years.

Special requirements:

When applicable, applicants must have a minimum Test of English as a Foreign Language score of 600. The Ph.D. program in health related sciences utilizes two six-month semesters per year (January through June and July through December), which include both on- and off-campus components.

Students interested in the sequential Doctor of Nurse Anesthesia Practice to Ph.D. in Health Related Sciences concentration must first be admitted to the D.N.A.P. program. Matriculated D.N.A.P. students who wish to enter the combined concentration may apply to the Ph.D. program during the semester preceding graduation from the D.N.A.P. program. Applicants must meet the admission requirements and prerequisites of both programs, be enrolled in the D.N.A.P. program and have demonstrated satisfactory academic performance and professionalism.

Refer to the program search function of the online VCU Bulletins for complete information about the D.N.A.P. program

In addition to the general admission requirements of the VCU Graduate School, applicants to the Ph.D. program must meet the following criteria:

- Have an earned master's degree in an academic or allied health-related field from an accredited college or university; preference will be given to applicants who have a minimum cumulative GPA of 3.3 on master's-level work (The master's degree should be in one of the departmental areas of choice of concentration.)
- Have GRE (verbal, quantitative and analytic writing) or MAT scores from within the past five years
- 3. Have completed a graduate course in statistics with a minimum grade of B
- 4. Demonstrate a record of professional competency and success
- Articulate clear professional and educational goals and written communication skills through the submission of a written essay
- 6. Have any additional qualifications/certifications of the individual concentrations

Prior to reviewing an application for admission, the program must receive:

- 1. A completed application form from the applicant, including:
 - a. Three letters of recommendation, two of which preferably are from sources qualified to assess the candidate's academic potential
 - A written essay that discusses career goals and the manner in which this
 doctoral program will enhance those goals and what the applicant
 expects to contribute to this program
 - c. A curriculum vitae
- 4. Official transcripts indicating completion of baccalaureate and master's degrees (or equivalent) from an accredited college or university
- 5. GRE or MAT scores

Incomplete packages may not be reviewed. Materials are sent to the Graduate Admissions office for processing and then forwarded to the School of Allied Health Professions. Once received in the school, the application is reviewed for completeness. Applicants with incomplete files will be contacted regarding the missing materials. Incomplete files will be held in the director's office until all materials are received.

Completed folders will be sent to the respective departmental representative of the School of Allied Health Professions Doctoral Program Advisory Committee. Departments will then rank qualified applicants and, based on a review of the file, a personal interview will be scheduled at the department's discretion for the top candidates. Following the departmental ranking, all files will be returned to the director's office.

The DPAC will meet to select and recommend the incoming class. The director and the dean of the School of Allied Health Professions are responsible for the final decision

Applicants will be notified by the Graduate Admissions office regarding the admission decision and of the deadline for their acceptance of the offer and holding fee.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission/purpose

The Ph.D. in Health Related Sciences program will provide experienced health professionals with advanced knowledge and skills so that they may assume positions in teaching, research and administration upon graduation. It offers a curriculum with an interdisciplinary core of courses with concentrations in clinical laboratory sciences, gerontology, health care outcomes research, nurse anesthesia, occupational therapy, patient counseling, physical therapy, radiation sciences and rehabilitation leadership. The program emphasizes use of distance-learning technologies combined with traditional didactic methods. The curriculum is relevant, timely and meaningful to a multidisciplinary cohort of students.

The sequential D.N.A.P. to Ph.D. concentration meets the growing interest and needs of those D.N.A.P. students who require a research doctorate. The program integrates content specific to the clinical doctorate with content specific to the research doctorate where the Ph.D. portion of the program begins following successful completion of the D.N.A.P. The objective of the program is to prepare certified registered nurse anesthetists holding master's degrees for careers in nurse anesthesia leadership, education and research. Students in this concentration will benefit from taking three courses that are shared between the two individual programs and are able to satisfy program requirements, in part, through distance technology while continuing to maintain their current family and employment obligations.

Student learning outcomes

Students completing this doctoral program will:

- Demonstrate the ability to conduct research, understand issues, design and execute research plans, analyze research results, and present conclusions in the area of interdisciplinary health care using the appropriate methods
- 2. Demonstrate an in-depth knowledge in the area of specialization
- Exhibit competency in translating research knowledge and principles into applied practice perspectives and skills
- Display educational expertise in current principles and content of the allied health sciences and teach in the area of interdisciplinary health care practice
- Display the ability to examine current issues and future changes in the health care environment from an interdisciplinary perspective
- Exhibit knowledge and understanding of professional and ethical responsibility and conduct in the allied health professions

Demonstrate knowledge and understanding of the importance of cultural diversity in the delivery of health care and the formulation of health policy

Degree requirements

Students in the D.N.A.P. program apply to the Ph.D. in Health Related Sciences program during the last semester in the D.N.A.P. program. Once accepted into the Ph.D. program, students continue with the curriculum as described.

In addition to general VCU Graduate School graduation requirements, students must successfully complete a total of 75 credit hours (33 credit hours from the D.N.A.P. program and 51 credit hours from the Ph.D. program minus nine credit hours for three shared courses). The Ph.D. curriculum includes 18 credit hours of common interdisciplinary core courses, 12 credit hours of research methods core courses, nine credit hours of specialty track (courses shared with the D.N.A.P. program),12 credit hours of dissertation research, two comprehensive examinations, a research proposal defense and the final dissertation defense.

Continuation requirements

After admission to the Ph.D. program, the student must maintain a minimum cumulative GPA of 3.0 in all of the course work completed at VCU. A student who falls below that minimum will have one semester to remedy the deficiency. Even with an overall minimum GPA of 3.0, a student may earn no more than two (six credit hours) grades of C. Students who receive a grade of D or F will be reviewed for continuation in the program by the department of their concentrations.

Students are expected to maintain continuous enrollment while in the program. Following the completion of the core course work, students must register for at least one credit hour each fall and spring semester for continuation in the program. A student who fails to register must have advance approval to do so or will be dropped automatically from the program and must reapply for reinstatement. The maximum time to complete all of the requirements for the degree is eight calendar years from the date of entry into the program.

Course transfer or waiver

A maximum of 25 percent of the course work other than research may be transferred from another VCU program or outside institution and applied toward the degree requirements. Transfer and waiver credit is given at the discretion of the program director after consultation with appropriate faculty members, subject to university approval. Courses taken as requirements for other degrees are not transferable, unless approved as part of a combined degree program. A waiver may be warranted if an equivalent course was taken. However, another course must be substituted for the waived course in order to fulfill the requisite credit hours needed for degree completion.

Comprehensive examination

The purpose of the comprehensive examination is to provide a vehicle through which students can demonstrate the ability to integrate their educational experiences by adequately addressing complex questions pertinent to the current and developing knowledge of the allied health fields. Students are eligible to take each of the two comprehensive examinations upon successful completion of the appropriate core course work. The core exam must be taken within six months of completing the methods exam.

Two written examinations will be administered, one for the common interdisciplinary core and one for the research methods core. A three-member graduate faculty committee will develop and administer each exam. This committee will be made up of two members of the core advisory committee and one member appointed by the program director. Each exam will be offered once in the fall semester and once in the spring semester. Prior to completion of the semester in which students become eligible to take each exam, they must submit a formal statement of intent to the program coordinator.

Students who receive a failing grade on the initial attempt will have one opportunity to repeat each comprehensive examination. Failure to pass an exam on the second attempt will result in dismissal from the program.

Curriculum structure

The Ph.D. program curriculum is designed to take four years to complete. Students spend the first two and one-half years (six-month-long semesters) completing course work. The final year and one-half is spent developing the doctoral dissertation. Research components are present in each year of the program, and a research emphasis is present throughout the entire curriculum. Students are

required to designate the area of intended research in their concentration areas in the first year.

Each of the five course-work semesters is composed of both on- and off-campus components. On-campus sessions, scheduled during the end of June and beginning of July and at the beginning of January, will employ a rather traditional mix of educational technologies (e.g., lectures, seminars and assigned reading). During the off-campus component of each semester, students pursue their studies employing a wide variety of innovative educational technologies (e.g., computer conferencing, computer-aided instruction, videotape packages and programmed instructional material), in addition to assigned readings and the completion of various assignments and projects. Upon completion of the five semesters of course work, students are required to return to campus each semester until a research proposal has been developed and successfully defended.

Advising

Upon admission to the program, students will be assigned an interim adviser to guide them through the core courses and assist them as they consider their areas of research. All program advisers will have an earned doctorate and be members of the university's graduate faculty.

Students may change their interim advisers as their programs of study and interests evolve, if approved by the program director. Although discouraged, some students may wish to switch their area of concentration (changing from the department through which they were initially admitted to the program). Students who want to change concentration areas must petition the doctoral program director. The petition must be approved by the program director, the DPAC and the appropriate department chair. There is no guarantee that the applicant will be accepted into the new concentration.

After successful completion of the comprehensive examinations, students will choose a dissertation chair that will serve as adviser and guide them through the research/dissertation process.

Computer requirements

All students admitted to the program must have access to a personal computer and a DSL or cable modem. Once admitted to the program, it is recommended that students who do not feel proficient in computer skills enroll in a basic computer course to become comfortable with use of the Internet and with the basics of document processing software.

Admission to candidacy

Students are eligible to begin their dissertations upon written certification by the program director and associate dean of the Graduate School that all predissertation/research requirements, including the comprehensive examinations, have been satisfied and that the student is prepared to proceed with the dissertation/research project. Copies of the certification will be forwarded to the student, the student's formal program adviser and the dean of the School of Allied Health Professions. After admission to candidacy, students will proceed to propose, complete and defend their dissertations or three journal articles research requirement.

Enrollment requirement

Students are required to maintain continuous enrollment in ALHP 899 Dissertation Research until completion of the requirements, including the defense

Dissertation/research committee

After successful completion of the comprehensive exam, the student nominates a dissertation/research committee, and the dissertation/research director submits the nominations in writing to the program director. Such committees will consist of a minimum of four graduate faculty members, one of whom will be outside the student's concentration area. The program director will provide written approval of the dissertation/research committee and clear such appointments with the appropriate administrative officials.

Dissertation/research standards

The dissertation or publishable research articles must represent independent research and should be based on an original research question or hypothesis. Generally, dissertations or publishable research articles will demonstrate the student's ability with empirical research, adhering to canons of (1) logic in conceptualization and design, (2) valid and reliable measurement, (3) appropriate analytic technique and (4) appropriate interpretation of results. Studies should be based on a formal theoretical or conceptually explicit framework for investigating a question or testing a hypothesis relevant to the allied health field.

Curriculum requirements	
Courses	Credit hours
ALHP 702 Finance and Economic Theory for Health Care	3
ALHP 708-002 Ethics and Health Care	3
ALHP 712 Curriculum and Communication Design for Health Care Professionals	3
ALHP 716 Grant Writing and Project Management in Health	3
Related Sciences ALHP 718 Health Informatics	3
ALHP 760-002 Biostatistical Methods for Health Related Sciences	3
ALHP 761 Health Related Sciences Research Design	3
ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research	3
ALHP 763 Clinical Outcomes Evaluation for Health Related Sciences	3
ALHP 781-004 Doctoral Seminar in Health Related Sciences	3
ALHP 792-804 Independent Study	1-4 (3
	required)
ALHP 793-004 Research Practicum	3
ALHP 890 Dissertation Seminar	3
ALHP 899-804 Dissertation Research	9
DNAP 703 Health Care Delivery Systems for the Nurse Anesthetist	3
Total graduate credit hours required (minimum)	51
Sample plan of study	
Courses	Credit hours
D.N.A.P. program requirements, fall semester II ALHP 708-002 Ethics and Health Care	3
ALHP 708-002 Ethics and Health Care D.N.A.P. program requirements, spring semester II	
ALHP 708-002 Ethics and Health Care D.N.A.P. program requirements, spring semester II DNAP 703 Health Care Delivery Systems for the Nurse Anesthetist	3
ALHP 708-002 Ethics and Health Care D.N.A.P. program requirements, spring semester II DNAP 703 Health Care Delivery Systems for the Nurse Anesthetist D.N.A.P. program requirements, fall semester III	3
ALHP 708-002 Ethics and Health Care D.N.A.P. program requirements, spring semester II DNAP 703 Health Care Delivery Systems for the Nurse Anesthetist D.N.A.P. program requirements, fall semester III ALHP 760-002 Biostatistical Methods for Health Related Sciences	3
ALHP 708-002 Ethics and Health Care D.N.A.P. program requirements, spring semester II DNAP 703 Health Care Delivery Systems for the Nurse Anesthetist D.N.A.P. program requirements, fall semester III ALHP 760-002 Biostatistical Methods for Health Related Sciences Ph.D. in Health Related Sciences, semester 1 ALHP 712 Curriculum and Communication Design for Health Care Professionals	3
ALHP 708-002 Ethics and Health Care D.N.A.P. program requirements, spring semester II DNAP 703 Health Care Delivery Systems for the Nurse Anesthetist D.N.A.P. program requirements, fall semester III ALHP 760-002 Biostatistical Methods for Health Related Sciences Ph.D. in Health Related Sciences, semester 1 ALHP 712 Curriculum and Communication Design for Health Care Professionals Ph.D. in Health Related Sciences, semester 2	3
ALHP 708-002 Ethics and Health Care D.N.A.P. program requirements, spring semester II DNAP 703 Health Care Delivery Systems for the Nurse Anesthetist D.N.A.P. program requirements, fall semester III ALHP 760-002 Biostatistical Methods for Health Related Sciences Ph.D. in Health Related Sciences, semester 1 ALHP 712 Curriculum and Communication Design for Health Care Professionals	3 3 3
ALHP 708-002 Ethics and Health Care D.N.A.P. program requirements, spring semester II DNAP 703 Health Care Delivery Systems for the Nurse Anesthetist D.N.A.P. program requirements, fall semester III ALHP 760-002 Biostatistical Methods for Health Related Sciences Ph.D. in Health Related Sciences, semester 1 ALHP 712 Curriculum and Communication Design for Health Care Professionals Ph.D. in Health Related Sciences, semester 2 ALHP 702 Finance and Economic Theory for Health Care	3 3 3
D.N.A.P. program requirements, spring semester II DNAP 703 Health Care Delivery Systems for the Nurse Anesthetist D.N.A.P. program requirements, fall semester III ALHP 760-002 Biostatistical Methods for Health Related Sciences Ph.D. in Health Related Sciences, semester 1 ALHP 712 Curriculum and Communication Design for Health Care Professionals Ph.D. in Health Related Sciences, semester 2 ALHP 702 Finance and Economic Theory for Health Care ALHP 761 Health Related Sciences Research Design ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research	3 3 3 3 3
D.N.A.P. program requirements, spring semester II DNAP 703 Health Care Delivery Systems for the Nurse Anesthetist D.N.A.P. program requirements, fall semester III ALHP 760-002 Biostatistical Methods for Health Related Sciences Ph.D. in Health Related Sciences, semester 1 ALHP 712 Curriculum and Communication Design for Health Care Professionals Ph.D. in Health Related Sciences, semester 2 ALHP 702 Finance and Economic Theory for Health Care ALHP 761 Health Related Sciences Research Design ALHP 762 Multivariate Statistical Methods for Health Related	3 3 3 3 3 3
D.N.A.P. program requirements, spring semester II DNAP 703 Health Care Delivery Systems for the Nurse Anesthetist D.N.A.P. program requirements, fall semester III ALHP 760-002 Biostatistical Methods for Health Related Sciences Ph.D. in Health Related Sciences, semester 1 ALHP 712 Curriculum and Communication Design for Health Care Professionals Ph.D. in Health Related Sciences, semester 2 ALHP 702 Finance and Economic Theory for Health Care ALHP 761 Health Related Sciences Research Design ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research Ph.D. in Health Related Sciences, semester 3	3 3 3 3 3
ALHP 708-002 Ethics and Health Care D.N.A.P. program requirements, spring semester II DNAP 703 Health Care Delivery Systems for the Nurse Anesthetist D.N.A.P. program requirements, fall semester III ALHP 760-002 Biostatistical Methods for Health Related Sciences Ph.D. in Health Related Sciences, semester 1 ALHP 712 Curriculum and Communication Design for Health Care Professionals Ph.D. in Health Related Sciences, semester 2 ALHP 702 Finance and Economic Theory for Health Care ALHP 761 Health Related Sciences Research Design ALHP 762 Multivariate Statistical Methods for Healh Related Sciences Research Ph.D. in Health Related Sciences, semester 3 ALHP 718 Health Informatics	3 3 3 3 3 3
D.N.A.P. program requirements, spring semester II DNAP 703 Health Care Delivery Systems for the Nurse Anesthetist D.N.A.P. program requirements, fall semester III ALHP 760-002 Biostatistical Methods for Health Related Sciences Ph.D. in Health Related Sciences, semester 1 ALHP 712 Curriculum and Communication Design for Health Care Professionals Ph.D. in Health Related Sciences, semester 2 ALHP 702 Finance and Economic Theory for Health Care ALHP 761 Health Related Sciences Research Design ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research Ph.D. in Health Related Sciences, semester 3 ALHP 718 Health Informatics ALHP 763 Clinical Outcomes Evaluation for Health Related Sciences	3 3 3 3 3 3 3
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ALHP 890 Dissertation Seminar

Core comprehensive exam

Ph.D. in Health Related Sciences, semester 5

ALHP 792-804 Independent Study	1-4 (3
	required)
ALHP 793-004 Research Practicum	3
ALHP 899-804 Dissertation Research	1-9 (9
	required)

Ph.D. in Health Related Sciences, semester 6

ALHP 899-804 Dissertation Research variable

Ph.D. in Health Related Sciences, semester 7

ALHP 899-804 Dissertation Research variable

Ph.D. in Health Related Sciences, semester 8

ALHP 899-804 Dissertation Research

variable

3

Dissertation and published research requirements

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Program completion requirements

The doctor of philosophy degree is awarded after (1) the minimum 51 credit hours of course work are completed, (2) comprehensive exams are passed, and (3) either a dissertation is written and defended orally or three first-author articles of publishable quality (on research undertaken by the doctoral candidate once enrolled in the program) are written and defended orally. The journal articles will be scrutinized for quality of scholarship by an internal research committee headed by the student's research adviser. All three articles must be approved by the internal research committee prior to submission.

Other information

Student handbook

A student handbook will be made available to all admitted students in their cohort organizations in Blackboard.

Facilities

The administrative offices for the program are located on the MCV Campus, at 1200 E. Broad St. (West Hospital, First Floor, East Wing).

Department of Clinical Laboratory Sciences

The Department of Clinical Laboratory Sciences supports the philosophy and mission of the university and the School of Allied Health Professions, and provides an environment that nurtures excellence in education, research and service. The programs offered by the department are dedicated to enhancing and promoting clinical laboratory science. The department fosters fair and equitable educational experiences for students of all ages and diverse backgrounds. Strong affiliations with clinical educators and the integration of innovative technology in the academic setting facilitate both the education and research goals of the department.

The department provides students with superior studies in clinical laboratory science, including both theoretical and applied clinical education, and develops problem-solving expertise, leadership capabilities and communication skills. By providing advanced theoretical and technical education, the graduate program serves to maintain and update the competency of laboratory professionals and to prepare students to assume roles as laboratory supervisors, university educators and researchers. A mature, responsible approach to the acquisition of knowledge is cultivated in order to establish continuing intellectual growth and an enthusiasm for the profession.

The department meets the growing health care needs of the community by providing highly competent and professional clinical laboratory scientists who will be able to function effectively upon entrance into the field and be prepared to explore future scientific and technological advances in laboratory science. And the department promotes continued professional development and personal growth for the faculty and staff to fulfill and balance the individual's abilities and aspirations with the departmental, school and institutional mission and needs. Members of the department conduct themselves in a forthright, ethical manner and practice the highest standard of quality performance.

The objectives of the Department of Clinical Laboratory Sciences are:

- To provide an educational program that prepares students to accurately perform and evaluate analytical tests on body fluids, cells and products.
- To foster the development of professional conduct, interpersonal communication skills and ethical principles.
- To develop and promote strategies for lifelong learning and to encourage continued professional growth through research, continued education and active participation in professional societies.

Administration

Teresa S. Nadder

Associate Professor and Department Chair

Emily M. Hill

Instructor and Assistant Chair

History

Clinical laboratory scientists have been trained on the MCV Campus since 1927. However, the Department (formerly school) of Medical Technology was not formally established until 1952, at which time the curriculum included six months of didactic experience with lectures and laboratory sessions held in the department, followed by a six-month rotation through the clinical laboratories. The school offered a certificate and/or bachelor's degree program; the certificate program was discontinued during the 1961-62 school year.

In 1974 the curriculum was expanded to the current two-plus-two year program in which students complete 60 semester hours of prerequisites followed by two years of professional course work. The graduate program in clinical laboratory sciences was started in 1967 to provide advanced education for certified medical technologists/clinical laboratory scientists. In 1985 the program was modified to allow candidates holding a degree in another area of science to obtain graduate education in clinical laboratory sciences.

In 1994, the department name was changed to the Department of Clinical Laboratory Sciences. In 2003, an accelerated track was initiated to integrate the undergraduate and graduate programs, which requires completion of two years of

prerequisites and three years of full-time professional course work, and leads to the simultaneous awarding of both the bachelor's and master's degrees.

Facilities

The Department of Clinical Laboratory Sciences is located in the Randolph Minor Hall on the MCV Campus. All faculty and clerical offices are located in this facility, as well as student classrooms, general teaching laboratory, computer facilities and a student lounge/reading room.

Clinical laboratory sciences courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to clinical laboratory sciences (CLLS) courses.

Clinical Laboratory Sciences, Master of Science (M.S.), accelerated Bachelor of Science in Clinical Laboratory Sciences (B.S.) to master's

Graduate program director

Teresa S. Nadder, Ph.D.

Associate professor and chair, Department of Clinical Laboratory Sciences tsnadder@vcu.edu

(804) 828-9469

Program website: sahp.vcu.edu/cls/curriculum/master.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Clinical Laboratory Sciences, Master of Science (M.S.), advanced master's concentration

Clinical Laboratory Sciences, Master of Science (M.S.), categorical concentration Health Related Sciences, Doctor of Philosophy (Ph.D.)

Clinical Laboratory Sciences, Master of Science (M.S.), accelerated Bachelor of

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Science in Clinical Laboratory Sciences (B.S.) to master's			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.S.	entry:		Minimum TOEFL of
	Spring	Nov 1	600 (paper), 250 (computer) or 100 (IBT); or minimum IELTS score of 7.0 for international students whose native language is not exclusively English
			Satisfactory scores on the GRE

Special requirements:

Applicants pursing the accelerated B.S. to M.S. degree program must initially qualify for admission to the B.S. in Clinical Laboratory Sciences degree program.

The accelerated bachelor's-to-master's-degree program integrates graduate and undergraduate course work and leads to the simultaneous awarding of the Bachelor of Science and Master of Science degrees in clinical laboratory sciences.

In addition to the general admission requirements of the VCU Graduate School, applicants must:

- Initially qualify for admission to the Bachelor of Science in Clinical Laboratory Sciences program
- 2. Complete a minimum of 112.5 undergraduate credit hours, including 60 prerequisite undergraduate credit hours (see admission requirements for the baccalaureate degree program in clinical laboratory sciences in the Undergraduate Bulletin for a list of the specific courses) and 52.5 credit hours of undergraduate professional course work in clinical laboratory sciences

- 3. Have a minimum undergraduate GPA of 3.0 on a 4.0 scale in undergraduate clinical laboratory course work
- 4. Receive a positive recommendation from the Department of Clinical Laboratory Sciences faculty
- 5. Have a satisfactory interview

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goals

The Department of Clinical Laboratory Sciences provides the student with advanced theoretical and technical education and prepares students to assume roles as laboratory supervisors, educators and researchers.

Student learning outcomes

- 1. Demonstrated professional and leadership conduct
- 2. Demonstrated ability to research and evaluate laboratory issues

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students in the accelerated B.S.-to-M.S.-degree program are required to complete:

- 1. A minimum 40 hours of graduate credit hours
- 2. A research study in the form of a thesis or project related to clinical laboratory sciences
- In addition to the basic science requirement, each student may choose an area of secondary emphasis in biomedical research, education, management or business.
 - In lieu of 14 credit hours of discipline-specific courses, students with a secondary emphasis in education, management or business may elect to focus on courses in those areas.
 - b. No more than 14 graduate credit hours in the area of the secondary emphasis may be applied toward the required curriculum minimum.

Beginning with the first semester of the Bachelor of Science in Clinical Laboratory Sciences program, candidates for the accelerated curriculum are expected to be full-time students and complete both the B.S. and M.S. requirements in three years.

Upon completion of the curriculum, students are eligible to take the ASCP BOC national certification examination for a Medical Laboratory Scientist generalist.

Curriculum requirements

Courses	hour
Undergraduate prerequisite requirement	60
60 credit hours of course work prior to entrance into the Bachelor of Science program in clinical laboratory sciences (Refer to the VCU Undergraduate Bulletin for details of the required courses.)	
Undergraduate professional studies requirement	52.5
CLLS 301-302 Hematology	7.5
CLLS 304 Urine and Body Fluid Analysis	2
CLLS 306 Immunohematology	4.5
CLLS 307 Introduction to Pathogenic Microbiology	3
CLLS 308 Pathogenic Bacteriology	5
CLLS 310 Clinical Immunology	4.5
CLLS 311-312 Clinical Chemistry and Instrumentation I-II	10
CLLS 337 Clinical Education	1
CLLS 483 Biochemistry Practicum	3
CLLS 485 Hematology Practicum	3
CLLS 493 Clinical Microbiology Practicum	3
CLLS 494 Miscellaneous Clinical Practicum	3
CLLS 496 Blood Bank Practicum	3
Total number of undergraduate credit hours required (minimum)	112.5
Graduate professional studies requirement	
Core	16
ACCT 507 Fundamentals of Accounting	3
BIOS/STAT 543 Statistical Methods I	3
CLLS 580 Principles of Education/Management	3
CLLS 690 Clinical Laboratory Sciences Seminar	1
CLLS 761 Research Methodology in Clinical Laboratory Sciences	3
CLLS 790 Research in Clinical Laboratory Sciences	3
Electives in business, education, management, marketing, health administration (Other courses may be approved.)	3
ADLT 601 Adult Learning and Development	3
ECON 500 Concepts in Economics	3
HADM 602 Health System Organization, Financing and	3
Performance	
HADM/ECON 624 Health Economics	3
INFO 661 Information Systems for Managers	3
MGMT 540 Business Management Theory and Practices	3
MGMT 641 Organizational Leadership and Project Team Management	3
MKTG 570 Concepts and Issues in Marketing	3
SCMA 530 Fundamentals of the Legal Environment of Business	3
CLLS discipline-specific sciences	9
CLLS 627 Advanced Concepts in Immunology/Immunohematology	3
CLLS 628 Advanced Concepts in Microbiology	2
CLLS 629 Advanced Concepts in Hematology	2
CLLS 630 Advanced Concepts in Chemistry and Instrumentation	2
Electives in discipline-specific sciences (Other courses may be	12
approved.) BIOC/MICR 503-504 Biochemistry, Cell and Molecular Biology	1-5
BIOL/BNFP 540 Fundamentals of Molecular Genetics	3
CHEM 633 Mass Spectrometry	1.5

CLLS 601 Theoretical Blood Banking	3
CLLS 602 Molecular Diagnostics in Clinical Laboratory Sciences	3
CLLS 605 Advanced Hematology	3
CLLS 608 Laboratory Diagnosis of Infectious Diseases	3
HGEN 501/BIOL 530 Human Genetics	3
HGEN 502 Advanced Human Genetics	3
MICR 505 Immunobiology	3
MICR 515 Principles of Molecular Microbiology	3
MICR 616 Mechanisms of Viral and Parasite Pathogenesis	3
MICR 618 Molecular Mechanisms of Bacterial Pathogenesis	3
PATH 601 General Pathology (Dentistry)	6
PHTX/FRSC 644 Forensic Toxicology	3

Total number of graduate credit hours required (minimum)

40

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

All students will be given a handbook on policies and regulations at orientation.

Clinical Laboratory Sciences, Master of Science (M.S.), advanced master's concentration

Graduate program director

Teresa S. Nadder, Ph.D.

Associate professor and chair, Department of Clinical Laboratory Sciences tsnadder@vcu.edu (804) 828-9469

Program website: sahp.vcu.edu/cls/curriculum/master.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Clinical Laboratory Sciences, Master of Science (M.S.), accelerated Bachelor of Science in Clinical Laboratory Sciences (B.S.) to master's

Clinical Laboratory Sciences, Master of Science (M.S.), categorical concentration Health Related Sciences, Doctor of Philosophy (Ph.D.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Clinical Laboratory Sciences, Master of Science (M.S.), advanced master's concentration Degree: Test requirements: Deadline dates: Semester(s) of M.S. entry: Minimum TOEFL of Fall Jun 1 600 (paper), 250 Nov 1 (computer) or 100 Spring (IBT): or minimum IELTS score of 7.0 for international students whose native language is not exclusively English Satisfactory scores on the GRE

Special requirements: Applicants holding baccalaureate degrees in clinical laboratory sciences/medical technology and generalist certification by the Board of Certification of the American Society for Clinical Pathology are eligible for the advanced master's concentration.

In addition to the general admission requirements of the VCU Graduate School, the general entrance requirements for the Master of Science (M.S.) in Clinical Laboratory Sciences for the advanced master's concentration are:

- Baccalaureate degree from an accredited college or university with a major in clinical laboratory sciences (medical technology)
- 2. National certification as a medical laboratory scientist or equivalent level
- 3. Minimum undergraduate GPA of 3.0 on a 4.0 scale for at least the last two years of undergraduate work
- 4. Three letters of recommendation from employers or recent instructors addressing academic potential
- Satisfactory interview

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The Department of Clinical Laboratory Sciences provides students with advanced theoretical and technical education and prepares them to assume roles as laboratory supervisors, educators and researchers.

Student learning outcomes

- 1. Demonstrated professional and leadership conduct
- 2. Demonstrated ability to research and evaluate laboratory issues

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students in the advanced master's concentration are required to complete:

- 1. A minimum of 34 graduate credit hours
- A research study in the form of a thesis or project related to clinical laboratory sciences
 - Students selecting the thesis option must complete a minimum of 15 graduate credit hours of discipline-specific sciences and six hours of research.
 - b. Students selecting the project option must complete 18 graduate credit hours of discipline-specific sciences and four hours of research.
- In addition to the basic science requirement, each student may choose an area
 of secondary emphasis in biomedical research, education, management or
 business
 - In lieu of 14 credit hours of discipline-specific courses, students with a secondary emphasis in education, management or business may elect to focus on courses in those areas.
 - No more than 14 graduate credit hours in the area of the secondary emphasis may be applied toward the required curriculum minimum.

Full-time candidates require a minimum of two academic years to complete the program. Part-time students must complete all work requirements within six years. An interruption in registration in excess of one semester requires prior approval of the department.

Curriculum requirements

A minimum total of 34 graduate credit hours are required as follows:

Courses	Credit hours
Core	13
BIOS/STAT 543 Statistical Methods I	3
CLLS 690 Clinical Laboratory Sciences Seminar (one-credit course taken	3
three times)	
CLLS 761 Research Methodology in Clinical Laboratory Sciences	3
CLLS 790 Research in Clinical Laboratory Science	4
Discipline-specific sciences (Specific courses will depend on the individual student's choice of specialty. The basic science requirement may be distributed among approved courses listed in the VCU Graduate Bulletin. Other courses may be approved.)	18
BIOC/MICR 503-504 Biochemistry, Cell and Molecular Biology	1-5
BIOL/BNFO 540 Fundamentals of Molecular Genetics	3
CHEM 633 Mass Spectrometry	1.5
CLLS 601 Theoretical Blood Banking	3
CLLS 602 Molecular Diagnostics in Clinical Laboratory Sciences	3
CLLS 605 Advanced Hematology	3
CLLS 608 Laboratory Diagnosis of Infectious Diseases	3
FRSC/PHTX 644 Forensic Toxicology	3
HGEN 501/BIOL 530 Human Genetics	3
HGEN 502 Advanced Human Genetics	3
MICR 505 Immunobiology	3
MICR 515 Principles of Molecular Microbiology	3
MICR 616 Mechanisms of Viral and Parasite Pathogenesis	3
MICR 618 Molecular Mechanisms of Bacterial Pathogenesis	3
PATH 601 General Pathology (Dentistry)	6
Electives in business, education, management, marketing, health administration (Other courses may be approved.):	3
ACCT 507 Fundamentals of Accounting	3
ADLT 601 Adult Learning and Development	3
ECON 500 Concepts in Economics	3

HADM 602 Health System Organization, Financing and Performance	3
HADM/ECON 624 Health Economics	3
INFO 661 Information Systems for Managers	3
MGMT 540 Business Management Theory and Practices	3
MGMT 641Organizational Leadership and Project Team Management	3
MKTG 570 Concepts and Issues in Marketing	3
SCMA 530 Fundamentals of the Legal Environment of Business	3

Total graduate credit hours required (minimum)

34

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

All students will be given a handbook on policies and regulations at orientation.

Clinical Laboratory Sciences, Master of Science (M.S.), categorical concentration

Graduate program director

Teresa S. Nadder, Ph.D.

Associate professor and chair, Department of Clinical Laboratory Sciences tsnadder@vcu.edu

(804) 828-9469

Program website: sahp.vcu.edu/cls/curriculum/master.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Clinical Laboratory Sciences, Master of Science (M.S.), accelerated Bachelor of Science in Clinical Laboratory Sciences (B.S.) to master's

Clinical Laboratory Sciences, Master of Science (M.S.), advanced master's concentration

Health Related Sciences, Doctor of Philosophy (Ph.D.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Clinical Laboratory Sciences, Master of Science (M.S.), categorical concentration			
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: Minimum TOEFL of
	Fall	Jun 1	600 (paper), 250
	Spring	Nov 1	(computer) or 100 (IBT); or minimum IELTS score of 7.0 for international students whose native language is not exclusively English
			Satisfactory scores on the GRE

Applicants must possess the essential technical abilities and skills described below.

In addition to the general admission requirements of the VCU Graduate School, the general entrance requirements for the Master of Science in Clinical Laboratory Sciences for the categorical concentration are:

- Baccalaureate degree from an accredited college or university with a major in biology or chemistry (Other majors may be approved with 12 credits of biology and 12 credits of chemistry completed.)
- 2. Minimum undergraduate GPA of 3.0 on a 4.0 scale for at least the last two years of undergraduate work
- Three letters of recommendation from recent instructors or professional references from the applicant's intended field of study addressing the applicant's academic and professional abilities and preparation for graduate study
- Satisfactory interview
- Essential functions in clinical laboratory sciences
 The VCU Department of Clinical Laboratory Sciences is responsible for providing education without regard to disability while assuring that academic and technical standards are met.
 - a. Academic standards are met by successfully completing the curriculum for the M.S. in Clinical Laboratory Sciences degree.
 - b. Technical standards represent the essential nonacademic requirements that a student must demonstrate to successfully participate in the M.S. in Clinical Laboratory Sciences degree program. The technical standards for each category identified below are consistent with the expectations of Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 and the ADA Amendments Act of 2008. Applicants must possess the following essential technical abilities and skills for admission consideration:
 - Manual dexterity: Ability to use hand(s) or prosthetic devices with coordination
 - Fine motor: Ability to manipulate small objects with fingertips or adaptive devices
 - Mobility: Ability to maneuver in the laboratory and around instruments and in patient-care settings
 - iv. Vision: Ability to distinguish red, yellow and blue colors; to distinguish clear from cloudy; and to distinguish objects through a microscope
 - v. Hearing: Ability to hear with assistive devices (i.e., phone receivers, hearing aid, etc.)
 - vi. Speech: Ability to verbally communicate in English
 - vii. Writing: Ability to communicate effectively in written form in English
 - viii. Reading: Ability to read, understand and follow directions printed in English
 - Emotional and physical stability: Ability to work accurately and safely under stress, adapt to changing environments and prioritize tasks

x. Personal attributes: Must demonstrate integrity, responsibility, tolerance and respect

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The Department of Clinical Laboratory Sciences provides students with advanced theoretical and technical education and prepares them to assume roles as laboratory supervisors, educators and researchers.

Student learning outcomes

- Demonstrated knowledge and proficiency of laboratory tests in specialized area of study
- 2. Demonstrated professional and leadership conduct
- 3. Demonstrated ability to research and evaluate laboratory issues

Degree requirements

The categorical concentration of the Master of Science program provides specialized study, including a clinical practicum, in one of the following areas: clinical chemistry, hematology, microbiology or immunohematology.

In addition to the general VCU Graduate School graduation requirements, students in the categorical concentration are required to complete:

- A minimum of 34 credit hours of graduate course work while completing undergraduate courses specific to their specializations
- 2. A six-week clinical practicum in their specialty areas
- A research study in the form of a thesis or project related to clinical laboratory sciences
- 4. Students selecting the thesis option must complete a minimum of 15 semester hours of discipline-specific sciences and six hours of research.
- Students selecting the project option must complete 18 semester hours of discipline-specific sciences and four hours of research.
- In addition to the basic science requirement, each student may choose an area of secondary emphasis in biomedical research, education, management or business.
- In lieu of 14 credit hours of discipline-specific courses, students with a secondary emphasis in education, management or business may elect to focus on courses in those areas.
- 8. No more than 14 credit hours in the area of the secondary emphasis may be applied toward the required curriculum minimum.

Upon completion of the curriculum, students are eligible to take a national certification examination in the area in which they performed their concentrated study.

Full-time candidates require a minimum of two academic years to complete the program. Part-time students must complete all work requirements within six years. An interruption in registration in excess of one semester requires prior approval of the department.

Curriculum requirements

Courses		redit ours
Discipline-specific undergraduate courses: Specific courses will depend on the individual student's choice of specialty. Other courses may be approved.		
Clinical chemistry specialty		10
CLLS 311 Clinical Chemistry and Instrumentation I	5	
CLLS 312 Clinical Chemistry and Instrumentation II	5	
Hematology specialty		9.5
CLLS 301 Hematology	3.	5
CLLS 302 Hematology	4	
CLLS 304 Urine and Body Fluid Analysis	2	
Immunohematology specialty		9
CLLS 306 Immunohematology	4.	
CLLS 310 Clinical Immunology (other immunology courses may be approved)	4.	5
Microbiology specialty		8
CLLS 307 Introduction to Pathogenic Microbiology	3	
CLLS 308 Pathogenic Bacteriology	5	
Total number of undergraduate credit hours required	8	3-10
Graduate curriculum		
Core		16
BIOS/STAT 543 Statistical Methods I		3
CLLS 580 Principles of Education/Management		3
CLLS 690 Clinical Laboratory Sciences Seminar (one-credit course taken a minimum of three times; four recommended)		3
CLLS 761 Research Methodology in Clinical Laboratory Sciences		3
CLLS 790 Research in Clinical Laboratory Sciences		4
Discipline-specific sciences: Specific courses will depend on the individual student's choice of specialty. Other courses may be approved	ed.	18
All specialties		
CLLS 500 Concepts and Techniques in Clinical Laboratory Sciences		3
CLLS 595 Clinical Practicum		3
Clinical chemistry specialty		
CHEM 633 Mass Spectrometry		1.5
CLLS 630 Advanced Concepts in Clinical Chemistry and		2
Instrumentation		2
PHTX/FRSC 644 Forensic Toxicology		3
Hematology specialty		
CLLS 605 Advanced Hematology		3
CLLS 629 Advanced Concepts in Hematology		2
HGEN 501/BIOL 530 Human Genetics		3
Immunohematology specialty		
CLLS 601 Theoretical Blood Banking		3
-		

CLLS 62 / Advanced Concepts in Immunology and Immunohematology	3
HGEN 501/BIOL 530 Human Genetics	3
Microbiology specialty	
CLLS 608 Laboratory Diagnosis of Infectious Diseases	3
CLLS 628 Advanced Concepts in Microbiology	2
MICR 515 Principles of Molecular Microbiology	3
MICR 616 Mechanisms of Viral and Parasite Pathogenesis	3
MICR 618 Molecular Mechanisms of Bacterial Pathogenesis	3
Electives for all specialties (other courses may be approved)	
BIOC/MICR 503-504 Biochemistry, Cell and Molecular Biology	1-
BIOL/BNFO 540 Fundamentals of Molecular Genetics	3
CLLS 602 Molecular Diagnostics in Clinical Laboratory Sciences	3
HGEN 502 Advanced Human Genetics	3
MICR 505 Immunobiology	3
PATH 601 General Pathology (Dentistry)	6
Electives in business, education, management, marketing, health	
administration (Other courses may be approved.)	

ACCT 507 Fundamentals of Accounting ADLT 601 Adult Learning and Development ECON 500 Concepts in Economics HADM 602 Health System Organization, Financing and Performance

HADM/ECON 624 Health Economics 3
INFO 661 Information Systems for Managers 3
MGMT 540 Business Management Theory and Practices 3
MGMT 641 Organizational Leadership and Project Team Management 3
MKTG 570 Concepts and Issues in Marketing 3

SCMA 530 Fundamentals of the Legal Environment of Business

Total number of graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

All students will be given a handbook on policies and regulations at orientation.

Department of Gerontology

The mission of the Department of Gerontology is to improve elder care through education.

The basic philosophy of the department is to improve the overall well-being of elders through the development of educational programs that are responsive to the changing psychological, physical, social and political needs of our elderly population. Research, community service and continuing education in gerontology and geriatrics are integral parts of this educational effort.

Administration

E. Avn Welleford

Associate Professor and Department Chair

History

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The Department of Gerontology was founded in 1976. The Master of Science in Gerontology, as well as a postgraduate Certificate in Aging Studies, is offered. The Department of Gerontology became a part of the School of Allied Health Professions in January 1985. As part of the department, the Geriatric Education Center was established Oct. 1, 1985. This center is a multidisciplinary effort involving cooperation of all the health-related professional schools and the College of Humanities and Sciences; the major focus is to promote education in geriatrics and gerontological health care.

Objectives

The purpose of this program is threefold: (1) to train qualified professionals to work in administrative, planning, service delivery and instructional and staff development positions in programs and services for the elderly at the national, state and local levels, (2) to provide an opportunity for those studying in other disciplines, and whose work will encompass service to the aged, to integrate their own training with a comprehensive knowledge and understanding of the aging process and (3) to stimulate the design and execution of gerontological research across the multiple disciplines.

Facilities

Offices of the Department of Gerontology are located in the Theater Row building at 730 E. Broad St. The Virginia Geriatric Education Center is housed in West Hospital, 1200 E. Broad St., 4th Floor, West Wing.

Programs

Seven courses of study are offered:

- · A Master of Science in Gerontology degree
- A Certificate in Aging Studies program to meet the needs of persons working with the elderly, but who have no academic training in gerontology
- A combination of the Certificate in Aging Studies program and the Doctor of Physical Therapy degree, offered jointly with the Department of Physical Therapy
- A combination of the Certificate in Aging Studies program and a Master of Social Work degree, offered jointly with the School of Social Work
- A combination of the Certificate in Aging Studies with the Doctor of Pharmacy degree, offered with the School of Pharmacy
- A combination of the Certificate in Aging Studies and a Master of Science in Rehabilitation Counseling, offered jointly with the Department of Rehabilitation Counseling
- A combination of the Certificate in Aging Studies and either the Postprofessional Master of Science in Occupational Therapy (M.S.), the Master of Science in Occupational Therapy (M.S.O.T.) or the Post-professional Occupational Therapy Doctorate (O.T.D.)

Gerontology courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to gerontology (GRTY) courses.

Aging Studies, Certificate in (Post-baccalaureate graduate certificate)

Graduate program director

E. Ayn Welleford, Ph.D. Chair, Department of Gerontology ewellefo@vcu.edu (804) 828-1565

Program website: sahp.vcu.edu/gerontology

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Occupational Therapy, Master of Science in (M.S.O.T.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Rehabilitation Counseling, Master of Science in (M.S.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Aging Studies, Certificate in (Post-baccalaureate graduate certificate)			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
Certificate	entry:		None
	All semesters		

The Certificate in Aging Studies program is open to qualified students who have earned a baccalaureate degree from an accredited college or university or the equivalent and who have met all general admission requirements of the VCU Graduate School.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Department of Gerontology serves the people of the commonwealth of Virginia and the nation by providing educational programs related to understanding of aging and promoting successful aging. The department encourages education through discovery of new knowledge, interdisciplinary interaction, professional behavior and service to the aging network. The

department's primary focus is to prepare individuals for positions in the network of aging services. These gerontologists are educated to serve as supporters of optimal aging for older persons and families and caregivers. The certificate program provides quality education to those who are already working with older adults and wish to enhance their services with formal academic training in gerontology or individuals with training in other professions.

The program's goal is to ensure that graduates will be able to demonstrate the ability to apply core gerontological concepts according to Association for Gerontology in Higher Education Core Concepts.

Student learning outcomes

- Students will understand the biological, psychological and sociological underpinnings of aging in U.S. society.
- Students will demonstrate understanding of methods and techniques to assist older persons and their families to achieve a successful response to aging.
- Students will be demonstrate an ability to combine their knowledge of gerontology with experience in the aging network and with knowledge of their core professional discipline so as to contribute to the successful delivery of services in the aging network.
- Students will develop understanding of and will engage in interdisciplinary approaches to issues and problems of aging.
- 5. Students enrolled in a dual program will engage in interdisciplinary practice in their core disciplines with special emphasis on gerontology.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students in the Certificate in Aging Studies program must complete 21 credit hours of work, including 15 credit hours of core courses and six elective credit hours, comprising the following courses offered in the gerontology graduate curriculum:

- . The biology of aging, psychology of aging, social gerontology and research methods form the basic core of the certificate program.
- 2. Following the completion of these gerontology courses, students may choose two elective gerontology courses after consultation with their faculty advisers. Advisers counsel students as to the courses that would best suit their educational training needs. Students may choose from aging and human values; topical seminars; independent studies; problems, issues and trends in gerontology; recreation, leisure and aging; and other elective courses.
- 3. In addition to the completion of these prescribed courses, each candidate for a Certificate of Aging Studies is required to satisfactorily complete a project in gerontology on a subject approved by the faculty. This project may be a comprehensive literature review, a research project or a training or demonstration project. Students register for a three-credit hour course in independent studies (GRTY 692) for this project.

Curriculum requirements

Courses	
Required courses	15
GRTY 601 Biological and Physiological Aging	3
GRTY/PSYC 602 Psychology of Aging	3
GRTY 603 Social Gerontology	3
GRTY 605 Social Science Research Methods Applied to Gerontology	3
GRTY 692 Independent Studies	3
Elective courses	6
GRTY 604 Problems, Issues and Trends in Gerontology	3
GRTY 606 Aging and Human Values	3
GRTY 615 Aging and Mental Disorders	3
GRTY 616 Geriatric Rehabilitation	3

GRTY 691 Topical Seminar
Other electives approved by adviser

Total graduate credit hours required (minimum)

21

3

Combined Certificate in Aging Studies opportunities for study

The Department of Gerontology, in cooperation with other programs at the university, provides students interested in working with elders or in gerontological settings with the opportunity to complete the Certificate in Aging Studies while also completing requirements for other degree programs. Students must apply separately to the participating programs and must meet all admission and degree requirements for both programs. In some cases, and with the approval of the advisers of both programs, course work in one program may be approved to satisfy a course requirement in another program. (See the complete list above.)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

The program's student handbook is available on the student Blackboard site.

Gerontology, Master of Science (M.S.)

Graduate program director

E. Ayn Welleford, Ph.D. Chair, Department of Gerontology ewellefo@vcu.edu (804) 828-1565

Program website: sahp.vcu.edu/gerontology

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Gerontology, Master of Science (M.S.)			
Degree: M.S.	Semester(s) of entry: All semesters	Deadline dates:	Test requirements: GRE or MAT

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following requirements:

The program is open to qualified students who have earned a baccalaureate degree from an accredited college or university or the equivalent, maintained a minimum GPA of 3.0 and have satisfactory scores on the GRE or MAT. A successful work experience may strengthen the admission credentials of applicants with marginal records

Because of the diversity of undergraduate majors, candidates for the gerontology program must present evidence of successful completion of undergraduate courses in the following areas:

- 1. Biological science minimum of six credit hours
- 2. Psychology minimum of three credit hours
- 3. Sociology, anthropology or social work minimum of three credit hours
- Statistics, research methods or equivalent minimum of three credit hours (Topics covered in this undergraduate course should be equivalent to those outlined for STAT 214 in the VCU courses database.)

Candidates for admission who do not meet these requirements will be expected to complete the required undergraduate course work or to pass challenge examinations by the end of the first year.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Department of Gerontology serves the people of the commonwealth of Virginia and the nation by providing educational programs related to the understanding of aging and promoting successful aging. The department encourages education through discovery of new knowledge, interdisciplinary interaction, professional behavior and service to the aging network. The department's primary focus is to prepare individuals for positions in the network of aging services. These gerontologists are educated to serve as supporters of optimal aging for older persons and families and caregivers. The master's program provides quality education leading to careers as services providers, educators and researchers. The department also provides assistance and services to the community and engages in research and scholarly activities related to gerontology.

The goal of the program is to ensure that students in the program will:

- Understand the biological, psychological and sociological underpinnings of aging in U.S. society as established by Association for Gerontology in Higher Education core competencies.
- Gain understanding and respect for the interdisciplinary team process in effective gerontological practice.
- 3. Through a lifespan biopsychosocialspiritual approach, gain understanding of empirically and theoretically based components contributing to optimal quality of life and performance in late life as well as knowledge and skills in best practices to promote optimal aging across the life span.
- Gain understanding of the existing aging network across federal, state and local levels. Thorough understanding will enable students to successfully identify their niche in the aging network, contribute to a growing field and deliver effective eldercare services.

Student learning outcomes

- Using the Association for Gerontology in Higher Education core content as
 the foundation of study, students will learn to apply the biological (e.g., wear
 and tear, programmed senescence, caloric restriction), psychological (e.g.,
 Erikson's Developmental Theory, gerotranscendence, selective optimization
 with compensation) and sociological theories (e.g., continuity, life course,
 modernization) of aging to gerontology practice.
- 2. As students develop a clearer understanding of effective eldercare through the biopsychosocial approach, lifespan perspective and numerous theories within the field (as implicit in AGHE's core competencies), the necessity of geriatric interdisciplinary care becomes more apparent. Students will gain understanding and respect for the interdisciplinary team process in effective gerontological practice and essential role of various disciplines on the care team.
- 3. Students will demonstrate a thorough understanding of the multiple paths, methods and techniques of optimal aging in order to assist older persons, their families, program providers and policymakers toward the goal of optimal aging. A comprehensive understanding of gerontology core concepts is essential to this goal.
- 4. Students will demonstrate an understanding of the aging network and will be able to make contributions to community-identified needs through the successful delivery of services in the aging network. Community engagement will take the form of field work, research, grant writing, service learning opportunities, education and training.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must complete a 30-credit hour curriculum based on the core curriculum to include either a generalist area of study or one of the following optional specialty areas of study:

Education: This specialty area is designed for students interested in teaching or training careers in gerontology. Students electing this specialty area will be prepared to provide instruction to university or community college students, the lay public, professional service providers and older people.

Health care organization and planning: (in conjunction with the Department of Health Administration) Upon completing this area of study, students will have a foundation of knowledge in health care organization, health planning, health policy and a macro perspective on the financing of health care. In addition, students will have developed skills in policy analysis and the use of economic tools. Finally, students will broaden their understanding of the political, legal and ethical issues involved in health care organization and planning.

Psychogeriatrics: This specialty area, developed jointly with the Department of Psychology, is designed for students interested in working with those older adults and their families who are experiencing psychological difficulty. Students electing this option will be prepared to provide assistance directly to the elderly and their families as well as to consult and train professionals and paraprofessionals to provide more effective mental health services. Training is provided through a combination of specialized didactic instruction and structured field experience in providing direct services, consultation and education.

Public administration: Students who elect to pursue courses in the public administration area, developed jointly with the L. Douglas Wilder School of Government and Public Affairs, will, after completion of course work, be able to plan, organize, report and budget for public programs in aging. Grant writing and

program evaluation skills will be developed as well. Students choosing the public administration option may wish to complete the Certificate in Public Management program or the Certificate in Nonprofit Management program.

Research: This specialty area is designed for students who would ultimately like to pursue a doctoral degree in the social or behavioral sciences or in one of the health-related sciences in the School of Allied Health Professions. Students who elect the research option must complete a thesis or a paper of publishable quality. Students will obtain a strong background in experimental psychology research design and methodology and a broad background in life-span developmental theory.

Social services: This option concentrates on developing specialized knowledge and skills in the provision of services to the elderly, basic understanding and skills in at least one method of social work practice, commitment and ability to participate in the development of strategies and policies relevant to amelioration of social problems of the elderly, and the ability to integrate and use in practice knowledge of individual behavior and social structure with particular reference to the needs of the elderly.

Students should consult with their advisers for guidance with scheduling. It is required that students seek advising to determine how they will complete their five practice elective credit hours.

Curriculum requirements

Courses		Credit hours
GRTY 601 Biological and Physiological Aging	3	
GRTY/PSYC 602 Psychology of Aging	3	
GRTY 603 Social Gerontology	3	
GRTY 604 Problems, Issues and Trends in Gerontology	4	
GRTY 605 Social Science Research Methods Applied to	3	
Gerontology		
GRTY 606 Aging and Human Values	3	
GRTY 607 Field Study in Gerontology	4	
GRTY 608 Grant Writing	2	
Elective requirement*	5	
Total graduate credit hours required (minimum)		30

*Complete five credit hours from one of the following lists:

Courses	Credit hours
Education electives	
ALHP 591 Special Topics	1-4
GRTY 501 Physiological Aging	3
GRTY 510 Aging	3
GRTY 609 Career Planning	1
GRTY 620 Geriatric Interdisciplinary Team Training	1
GRTY 691 Topical Seminar	3
GRTY 692 Independent Studies	1-3
GRTY 792 Independent Studies for Master's-/Ph.Dlevel Students	3
GRTY 798, 799 Thesis	3-6
Additional electives based on areas of interest to be determined with student's adviser	
Health care organization and planning electives	

ALHP 591 Special Topics	1-4
GRTY 510 Aging	3
GRTY 609 Career Planning	1
GRTY 620 Geriatric Interdisciplinary Team Training	1
GRTY 638 Long-term Care Administration	3

GRTY 69 GRTY 79 GRTY 79	1 Topical Seminar 2 Independent Studies 2 Independent Studies for Master's-/Ph.Dlevel Students 8, 799 Thesis Il electives based on areas of interest to be determined with adviser	3 1-3 3 3-6
	Psychogeriatrics electives	
GRTY 50 GRTY 51 GRTY 60 GRTY 61 GRTY 61 GRTY 61 GRTY 61 GRTY 62 GRTY 62 GRTY 64 Older Add GRTY 69 GRTY 69 GRTY 79 GRTY 79	9 Career Planning 0 Gero-pharmacology 1 Death and Dying 3 GLBT in Aging 5 Aging and Mental Disorders 6 Geriatric Rehabilitation 4 Community and Community Services for the Elderly 9 Spirituality and Aging 1 Survey of Psychological Assessment and Treatment of the alt 2 Practicum in Clinical Geropsychology 1 Topical Seminar 2 Independent Studies 2 Independent Studies for Master's-/Ph.Dlevel Students 8, 799 Thesis Il electives based on areas of interest to be determined with	1-4 3 3 1 1 3 2 3 3 3 2-3 3 3 1-3 3 3-3-6
Student S		
	Public administration electives	
GRTY 50 GRTY 51 GRTY 60 GRTY 62 GRTY 69 GRTY 79 GRTY 79 Additional student's a	9 Career Planning 0 Geriatric Interdisciplinary Team Training 1 Topical Seminar 2 Independent Studies 2 Independent Studies for Master's-/Ph.Dlevel Students 8, 799 Thesis Il electives based on areas of interest to be determined with	1-4 3 3 1 1 3 1-3 3 3-6
	Research electives	
GRTY 50 GRTY 51 GRTY 69 GRTY 69 GRTY 79 GRTY 79	1 Topical Seminar 2 Independent Studies 2 Independent Studies for Master's-/Ph.Dlevel Students 8, 799 Thesis Il electives based on areas of interest to be determined with	1-4 3 3 1-3 3 3-6
	Social services electives	
	1 Special Topics 1 Physiological Aging 0 Aging	1-4 3 3

•	GRTY 609 Career Planning	1
•	GRTY 618 The Business of Geriatric Care Management	3
•	GRTY 619 Geriatiric Care Management Practicum	1-3
•	GRTY 620 Geriatric Interdisciplinary Team Training	1
•	GRTY 691 Topical Seminar	3
•	GRTY 692 Independent Studies	1-3
•	GRTY 792 Independent Studies for Master's-/Ph.Dlevel Students	3
•	GRTY 798, 799 Thesis	3-6
	Additional electives based on areas of interest to be determined with student's adviser	

Social services electives

ALHP 591 Special Topics	1-4
GRTY 501 Physiological Aging	3
GRTY 510 Aging	3
GRTY 609 Career Planning	1
GRTY 610 Gero-pharmacology	1
GRTY 611 Death and Dying	3
GRTY 613 GLBT in Aging	2
GRTY 615 Aging and Mental Disorders	3
GRTY 616 Geriatric Rehabilitation	3
GRTY 620 Geriatric Interdisciplinary Team Training	1
GRTY 621 Professional Writing	1
GRTY 624 Community and Community Services for the Elderly	3
GRTY 625 Aging and the Minority Community	3
GRTY 629 Spirituality and Aging	2-3
GRTY 691 Topical Seminar	3
GRTY 692 Independent Studies	1-3
GRTY 792 Independent Studies for Master's-/Ph.Dlevel Students	3
GRTY 798, 799 Thesis	3-6
Additional electives based on areas of interest to be determined with student's adviser	

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of Health Administration

Education in health administration at the university began in 1949 with the establishment of a graduate curriculum in hospital administration. Early graduates received a certificate; the master's degree was awarded beginning in 1955.

These early efforts grew and developed into the Department of Health Administration, which was established in 1972. The department now includes three major programs: (1) Master of Health Administration, (2) Doctor of Philosophy in Health Services Organization and Research, and (3) Professional Master of Science in Health Administration – Online. The department also cooperates with the schools of law of the University of Richmond and Washington and Lee University in offering dual degree programs in health administration and law. In 2001, the dual degree M.D./M.H.A. program was established with the VCU School of Medicine. Both master's programs are fully accredited by the Commission on Accreditation of Healthcare Management Education (CAHME). In addition to these educational programs, the Department of Health Administration has a major research program and is involved in a wide range of public service activities, including continuing studies for health services administrators and other health professionals.

The overall purpose of the Department of Health Administration is to provide educational programs and services related to the organization and administration of health services. In achieving that purpose, the department's principal functions are to provide high-quality education leading to careers in the administration of health care institutions, agencies and systems and to provide advanced training and education for persons who will teach, plan, evaluate and investigate health care policies and medical care systems. Corollary functions are to provide assistance and other services for community organizations and to conduct health services and health policy research.

Administration

Carolyn A. Watts

Arthur Graham Glasgow Professor and Department Chair

Dolores G. Clement

Charles P. Cardwell Jr., Professor and Director of Graduate Programs

Jan P. Clement

Professor and Director of Ph.D. Program

Facilities

The department is located in the William Grant House, formerly the Sheltering Arms Hospital, at 1008 E. Clay St., Richmond, VA. The chair's office and the professional graduate programs offices are located on the second floor. The doctor of philosophy program office is located on the third floor of the building.

MCV Hospitals, one of the largest teaching hospitals in the nation, and other clinical facilities of the VCU Medical Center are readily accessible to the department's students and faculty. In addition, the department has clinical affiliations and close working relationships with a large number of health care organizations and agencies in Virginia and throughout the United States. The organizations and agencies are used extensively as clinical facilities in the department's educational programs.

Health administration courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow these links to health administration (HADM) courses or executive program (HADE) courses.

Health Administration, Master of (M.H.A.)

Graduate program director Jonathan DeShazo, M.P.H., Ph.D. Associate professor jpdeshazo@vcu.edu (804) 828-5509

Additional contact

Suzanne C. Havasy Coordinator, M.H.A. program shavasy@vcu.edu (804) 828-0719

Program website: had.vcu.edu/prospective/mha

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Administration, Master of (M.H.A.)/Information Systems, Master of Science (M.S.) [combined]

Health Administration, Master of (M.H.A.)/Juris Doctor (J.D.) from the University of Richmond or Washington and Lee University [combined]

Health Administration, Master of Science in (M.S.H.A.)

Medicine, Doctor of (M.D./Health Administration, Master of (M.H.A.) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Health Admin	Health Administration, Master of (M.H.A.)			
Degree: M.H.A.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE/GMAT scores	
	Fall	Application deadline is Feb 1	on verbal and quantitative at or above the 50th	
		Applications received by Dec 1 are given	percentile	
		priority for funding	For international students: a TOEFL score of 600 (paper- based), 250	
			(computer-based) minimum	

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following requirements:

- Baccalaureate degree from an accredited institution with a 3.0 GPA for all undergraduate work completed
- Prerequisite course work in microeconomics, financial accounting and business statistics
- 3. A working knowledge of college-level algebra
- 4. Transcripts and VCU application forms
- 5. GRE/GMAT scores on verbal and quantitative at or above the 50th percentile
- 6. TOEFL scores required for international students
- 7. Professional resume
- 8. Three letters of reference
- Present evidence of personal achievement, scholarship, intellectual ability and professional promise (personal statement)
- 10. Invited interview with M.H.A. admissions committee

The prerequisite requirements may be met by completing specified courses with a minimum grade of C within the past five years at any accredited college or university.

International applicants must submit evidence of a preapproved residency site in the home country and evidence of financial responsibility.

VCU Honors students are eligible to apply for admission to the M.H.A. program during the junior or senior year of undergraduate study. The application process is the same as for other applicants with the following exceptions: (1) requirements for the GRE or GMAT are waived, (2) application fee is waived and (3) official transcript is not needed (as grades can be accessed in the VCU system). The admission decision will be made by the M.H.A. admissions committee, at which time a place will be reserved for the student, provided the student graduates with honors and completes the prerequisite course work.

Candidates with one to two years of experience are preferred.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The specific mission of the Master of Health Administration program is to prepare early careerists for management and leadership positions within complex health care organizations.

The overall purpose of the Department of Health Administration is to provide educational programs and service related to the organization and administration of health services. In achieving that purpose, the department's principal functions are to provide high-quality education leading to careers in the administration of health care institutions, agencies and systems and to provide advanced training and education for persons who will teach, plan, evaluate and investigate health care policies and medical care systems. Corollary functions are to provide assistance and other service for community organization and to conduct health services and health policy research.

The mission of the Department of Health Administration is:

- Educating the next generation of health administrators and enhancing the skills of the present generation
- 2. Preparing a new generation of health services researchers and educators
- Creating and disseminating basic and applied knowledge about the management, organization, financing, function and performance of the health care system
- 4. Serving people in the public and private sectors of the health care system

These activities, when mutually reinforced among all key people — faculty, staff, students, alumni/ae — elevate the department to a premier status among similar departments in the United States.

Student learning outcomes

Goal/domain	Competency	Description/learning outcomes
Communication and relationship management:		
	Interpersonal communication	Build collaborative relationships and negotiation skills
	Writing skills	Prepare business communications

skills

	Presentation skills	Demonstrate effective oral communication and presentation skills
Leadership	Leading and managing others	Hold self and others accountable for organizational goal attainment
	Change management	Promote and manage change
	Ability for honest self-assessment	Demonstrate reflection through self-assessment
	Systems thinking	Be able to assess the potential impacts and consequences of decisions in a broad variety of situations
	Problem-solving and decision-making	Apply evidence-based decision-making techniques to health care questions
Professionalism		
	Personal and professional ethics	Adhere to ethical business principles; exhibit ethical behaviors
	Professional and community contribution	Participate in community service; balance professional and personal pursuits
	Working in teams	Create, participate in and lead teams, including interprofessionalism
Knowledge of the health care environment		
	Health care issues and trends	Demonstrate knowledge of circumstances causing major changes and reform in U.S. health care delivery
	Health care legal principles	Discuss and critically analyze health-related legal principles including standards, regulations and risk management.
	Health policy	Articulate the impact of select health policies on the delivery of health services
	Population health and status assessment	Understand and explain the major factors in health status to health care professionals
Business and analytical		

Demonstrate the ability to Financial management compile and analyze financial data; develop capital, operating and cash flow budgets; analyze investment data; pro forma development Apply methods and Human resources techniques related to the management of health care organization employees and professional staff Organizational dynamics Understand and be able to and governance explain the roles, responsibilities, structures and influence governing bodies hold in health care organizations Strategic planning Ability to perform environmental analysis; discern competitive strategy; formulate business strategy based on evidence Analyze and assess Marketing markets, market segmentation, strategy, change and innovation Information management/ Apply techniques and understanding and using methods to plan, design, implement and assess technology skills information flow and communication Quality improvement/ Apply concepts of process performance improvement improvement and patient safety to relevant problems Quantitative skills Analyze data and interpret quantitative information Planning and managing Design, plan, implement projects and assess projects related to performance, structure and outcomes of health services

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete a total of 59 credit hours (including transfer credit hours, if any) to qualify for the Master of Health Administration degree. This requirement includes 48 credit hours of core course work plus at least three credit hours of elective studies in health administration and related disciplines, such as business administration, urban and regional planning, public health and gerontology. In addition, eight credit hours of practicum course work are required as a part of the administrative residency. The graduate program is designed to provide a balanced combination of academic studies and field experience to enable students to achieve the program's educational goals and become well-prepared to enter the field of health administration.

Economic analysis and

application

Analyze and apply

decisions

economic theory and concepts to business

Overview and philosophy

The Master of Health Administration program is designed to prepare persons for administrative roles ultimately leading to top-level executive positions in complex health services organizations. The curriculum emphasizes strategic and operational management, thus orienting students toward the broad spectrum of managerial problems and functions likely to be encountered by health services organizations.

The program's educational objectives and content are based upon the premise that a large number of students who select this curriculum aspire to become senior executives of health care organizations at some point in their careers. The graduate M.H.A. program is designed for full-time students.

The M.H.A. program was accredited initially in 1968, one of the first programs in the United States to achieve that status. It has continuously maintained its national accreditation status and in 2011 the program was awarded a six-year accreditation.

The administrative residency/internship is an integral part of VCU's M.H.A. program. The basic purpose of the residency/internship is to provide students opportunities to apply and further develop their administrative knowledge and skills through a period of applied experience in an operational setting. The administrative residency/internship is supervised directly by experienced executives who serve as the students' preceptors.

Through a carefully selected and organized residency/internship experience, students strengthen the foundation of general knowledge and skills gained through the core curriculum and develop further insight and expertise in their selected concentrations. Students serve their residency/internship in the type of health care organization in which they wish to gain specialized knowledge, skills and experience. Overall policies and guidance for the administrative residency/internship are established by the Department of Health Administration and are included in the Handbook for the Administrative Practica: Residencies and Internships.

Students become eligible for entrance into the administrative residency/internship after completing specified course work and achieving an overall GPA of 3.0. Students on academic probation or with any incomplete grades during their final on-campus semester prior to their residency may be, at the discretion of the faculty, prevented from entering their residency although their overall GPA is 3.0 or higher. In addition to meeting the academic requirements, the student must, in the judgment of the faculty, present evidence of readiness for a clinical experience by demonstrating sufficient academic proficiency in the core areas of the curriculum and by demonstrating professional maturity. The director of the M.H.A. program or designee has the responsibility to coordinate residency placements. In making these assignments, the director will consider the preferences of the students, the preferences of the preceptors and the recommendations of faculty advisers.

Curriculum requirements

Courses	Credit hours
HADM 602 Health System Organization, Financing and Performance	3
HADM 606 Health Care Managerial Accounting	3
HADM 607 Financial Management in Health Organizations	3
HADM 608 Seminar in Health Care Finance	3
HADM 609 Managerial Epidemiology	2
HADM 610 Health Care Management Decision Support Systems	3
HADM 611 Health Care Law and Bioethics	3
HADM 612 Information Systems for Health Care Management	3
HADM 614 Health Care Marketing	3
HADM 615 Health Care Politics and Policy	3
HADM/ECON 624 Health Economics	3
HADM 646 Health Care Organization and Leadership	3
HADM 647 Management of Health Care Organizations	3
HADM 648 Strategic Management in Health Care Organizations	3
HADM 649 Human Resources Management in Health Care	3
HADM 681 Clinical Concepts and Relationships	2
HADM 682 Executive Skills I	1
HADM 683 Executive Skills II	1
HADM 694 Practicum in Health Administration I	5
HADM 695 Practicum in Health Administration II	3-5

Electives The following list is suggestive. Other graduate-level courses may be selected by a student, though they should be approved by the program director to ensure they meet requirements. FIRE 638 Real Property Investment Law GRTY 603 Social Gerontology HADM 692 Independent Study in Health Administration HSEP 601 Emergency Management: Response Planning and Incident Command HSEP 650 Public Health Preparedness INFO 661 Information Systems for Managers MGMT 637 Advanced Human Resource Management MGMT 655 Entrepreneurship MGMT 677 Quality Management and Six Sigma PADM 601/GVPA 601 Principles of Public Administration PADM 625/GVPA 625 Public Policy Analysis

Total graduate credit hours required (minimum)

Sample plan of study

PADM 650 Principles of Nonprofit Management

Courses		Credit hours
Fall semester, first year		
HADM 602 Health System Organization, Financing and Performance	3	
HADM 606 Health Care Managerial Accounting	3	
HADM 609 Managerial Epidemiology	2	
HADM 646 Health Care Organization and Leadership	3	
HADM 681 Clinical Concepts and Relationships	2	
HADM 682 Executive Skills I	1	
Semester total		14
Spring semester, first year		
HADM 607 Financial Management in Health Organizations	3	
HADM 610 Health Care Management Decision Support Systems	3	
HADM/ECON 624 Health Economics	3	
HADM 647 Management of Health Care Organizations	3	
Semester total		12
Fall semester, second year		
HADM 608 Seminar in Health Care Finance	3	
HADM 612 Information Systems for Health Care Management	3	
HADM 615 Health Care Politics and Policy	3	
HADM 683 Executive Skills II	1	
Elective	3	
Semester total		13
Spring semester, second year		
HADM 611 Health Care Law and Bioethics	3	
HADM 614 Health Care Marketing	3	
HADM 648 Strategic Management in Health Care Organizations	3	
HADM 649 Human Resources Management in Health Care	3	
Semester total		12
Fall semester, third year		

HADM 694 Practicum in Health Administration I	5	
Semester total		5
Spring semester, third year		
HADM 695 Practicum in Health Administration II	3	
Semester total		3
Total graduate credit hours required (minimum)		59

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

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As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

All enrolled students will be provided a handbook at orientation.

Health Administration, Master of (M.H.A.)/Information Systems, Master of Science (M.S.) [combined]

Graduate program director

Dolores G. Clement, Ph.D., FACHE

Charles P. Cardwell, Jr., Professor and director, graduate programs in health administration

dclement@vcu.edu (804) 828-0719

Additional contact

Suzanne C. Havasy

Coordinator, M.H.A. program

shavasy@vcu.edu

(804) 828-0719

Program website: had.vcu.edu/prospective/mha

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Administration, Master of (M.H.A.)

Health Administration, Master of (M.H.A.)/Juris Doctor (J.D.) from the University of Richmond or Washington and Lee University [combined]

Health Administration, Master of Science in (M.S.H.A.) Medicine, Doctor of (M.D./Health Administration, Master of (M.H.A.) [combined]

Apply online at graduate.admissions.vcu.edu.

Advanced study in health administration and information systems is also available through combined degree programs co-sponsored by the department and the School of Business.

The proposed curriculum allows students to earn both the M.H.A. and the M.S. in Information Systems with a total of 78 credit hours rather than the 89 credit hours that would be required to obtain the degrees separately. The dual-degree option offers this credit-hour efficiency by taking advantage of curricular similarities in the two programs and allowing some courses to count toward both sets of requirements. A total of 12 credit hours will count toward both degrees and the M.H.A. foundation courses will be substituted for the business school foundation course requirements for combined degree students. Students in the combined degree program will follow the same schedule as regular M.H.A. students, including the two lockstep years.

Students will take 51 credit hours of health administration courses required for the M.H.A. and nine additional courses (27 credit hours) in the M.S. in Information Systems program, including INFO 610, INFO 620 and INFO 630. Students whose undergraduate degrees are not in information systems may also be required to take additional undergraduate prerequisite courses before taking the graduate information systems courses, as determined by the program adviser. The HADM 612 course taken for the M.H.A. will substitute for INFO 640, normally required for the M.S. in Information Systems degree, and one of the additional information systems courses will also count toward the elective courses in the M.H.A. program. A three-credit-hour, 10-week internship is required and must have substantial global, entrepreneurial and/or experiential components related to both degrees. The six information systems courses to be taken in addition to INFO 610, INFO 620 and INFO 630, must be approved by the program adviser and would normally be selected to satisfy one of the M.S. in Information Systems concentrations.

Courses	Credit hours
HADM 602 Health System Organization, Financing and Performance	3
HADM 606 Health Care Managerial Accounting	3
HADM 607 Financial Management in Health Organizations	3
HADM 608 Seminar in Health Care Finance	3
HADM 609 Managerial Epidemiology	2
HADM 610 Health Care Management Decision Support Systems	3
HADM 611 Health Care Law and Bioethics	3
HADM 612 Information Systems for Health Care Management	3
HADM 614 Health Care Marketing	3
HADM 615 Health Care Politics and Policy	3
HADM/ECON 624 Health Economics	3
HADM 646 Health Care Organization and Leadership	3
HADM 647 Management of Health Care Organizations	3
HADM 648 Strategic Management in Health Care Organizations	3
HADM 649 Human Resources Management in Health Care	3
HADM 681 Clinical Concepts and Relationships	2
HADM 682 Executive Skills I	1
HADM 683 Executive Skills II	1
HADM 693 Internship in Health Administration	3
INFO 610 Analysis and Design of Database Systems	3
INFO 620 Data Communications	3
INFO 630 Systems Development	3
INFO electives (chosen with permission of adviser)	6
INFO focus areas courses* (See options below.)	12
Total graduate credit hours required (minimum)	78

*Information systems focus areas

Students must declare a focus in two of the following areas and take the classes offered for each of those two areas for a total of 12 credit hours.

Business engineering

INFO 611 Data Re-engineering

INFO 632 Business Process Engineering

Information assurance

INFO 622 Internet Security Management

INFO 644 Principles of Computer and Information Systems Security

Information technology management

INFO 641 Strategic Information Systems Planning

INFO 643 Information Technology Project Management

Knowledge engineering

INFO 614 Data Mining

INFO 616 Data Warehousing

Sample M.H.A./M.S. in Information Systems plan of study

Courses	Credit hours
Fall semester I	
HADM 602 Health System Organization, Financing and Performance	3
HADM 606 Health Care Managerial Accounting	3
HADM 609 Managerial Epidemiology	2
HADM 646 Health Care Organization and Leadership	3
HADM 681 Clinical Concepts and Relationships	2
HADM 682 Executive Skills I	1
Prerequisite HADM or INFO courses if needed	
Semester total	14
Spring semester I	
HADM 607 Financial Management in Health Organizations	3
HADM 610 Health Care Management Decision Support Systems	3
HADM/ECON 624 Health Economics	3
HADM 647 Management of Health Care Organizations	3
Prerequisite HADM or INFO courses if needed	
Semester total	12
Summer semester I	
Prerequisite INFO courses if needed	
Fall semester II	
HADM 608 Seminar in Health Care Finance	3
HADM 612 Information Systems for Health Care Management	3
HADM 615 Health Care Politics and Policy	3
HADM 683 Executive Skills II	1
INFO course (elective or focus area course from above)	3
Prerequisite INFO courses, if needed	
Semester total	13
Spring semester II	
HADM 611 Health Care Law and Bioethics	3
HADM 614 Health Care Marketing	3
HADM 648 Strategic Management in Health Care Organizations	3
HADM 649 Human Resources Management in Health Care	3
Semester total	12

Summer semester II		
HADM 693 Internship in Health Administration	3	
Semester total		3
Fall semester III		
INFO 610 Analysis and Design of Database Systems	3	
INFO 620 Data Communications	3	
INFO 630 Systems Development	3	
INFO focus area course (from above)	3	
Semester total		12
Spring semester III		
INFO elective	3	
INFO focus area courses (from above)	9	
Semester total		12
Total graduate credit hours required (minimum)		78

Health Administration, Master of (M.H.A.)/Juris Doctor (J.D.) from the University of Richmond or Washington and Lee University [combined]

Graduate program director

Dolores G. Clement, Ph.D., FACHE Professor and director, dual-degree programs dclement@vcu.edu (804) 828-0719

Additional contact

Suzanne C. Havasy Coordinator, M.H.A. program shavasy@vcu.edu (804) 828-0719

Program website: had.vcu.edu/prospective/mha

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Administration, Master of (M.H.A.)

Health Administration, Master of (M.H.A.)/Information Systems, Master of Science (M.S.) [combined]

Health Administration, Master of Science in (M.S.H.A.)

Medicine, Doctor of (M.D./Health Administration, Master of (M.H.A.) [combined]

Apply online at graduate.admissions.vcu.edu.

Advanced study in health administration and law is available through dual-degree programs co-sponsored by the department and the schools of law at the University of Richmond and at Washington and Lee University. The program leads to the awarding of the Master of Health Administration and Juris Doctor degrees.

Participants are provided the necessary expertise either to represent clients within the health care industry or to function as legal policy-makers or administrators who fully appreciate the legal environment of the health care field. Applicants for this program are required to meet the admission requirements of each program. For information regarding the dual-degree program, contact the director of the program.

The M.H.A. curricula sequence of the M.H.A./J.D. degree is shown below. Students take a total of 48 credit hours of M.H.A. course work that includes a three-credit-hour internship.

Courses	Credit
Courses	hours

HADM 602 Health System Organization, Financing and	3	
Performance		
HADM 606 Health Care Managerial Accounting	3	
HADM 607 Financial Management in Health Organizations	3	
HADM 608 Seminar in Health Care Finance	3	
HADM 609 Managerial Epidemiology	2	
HADM 610 Health Care Management Decision Support Systems	3	
HADM 612 Information Systems for Health Care Management HADM 614 Health Care Marketing	3	
HADM 615 Health Care Politics and Policy	3	
HADM/ECON 624 Health Economics	3	
HADM 646 Health Care Organization and Leadership	3	
HADM 647 Management of Health Care Organizations	3	
HADM 648 Strategic Management in Health Care Organizations	3	
HADM 649 Human Resources Management in Health Care	3	
HADM 681 Clinical Concepts and Relationships	2	
HADM 682 Executive Skills I	1	
HADM 683 Executive Skills II	1	
HADM 693 Internship in Health Administration	3	
The Date of the Control of the Contr	,	
Total graduate credit hours required (minimum)		48
Sample M.H.A./J.D. plan of study		
Courses		Credit hours
Fall semester I		
HADM 602 Health System Organization, Financing and Performance	3	
HADM 606 Health Care Managerial Accounting	3	
HADM 609 Managerial Epidemiology	2	
HADM 646 Health Care Organization and Leadership	3	
HADM 681 Clinical Concepts and Relationships	2	
HADM 682 Executive Skills I	1	
Semester total		14
Spring semester I	_	
HADM 607 Financial Management in Health Organizations	3	
HADM 610 Health Care Management Decision Support Systems	3	
HADM/ECON 624 Health Economics	3	
HADM 647 Management of Health Care Organizations	3	
Semester total		12
Summer semester I		
HADM 693 Internship in Health Administration	3	
Semester total		3
Semester total		3
Fall semester II		
HADM 608 Seminar in Health Care Finance	3	
HADM 608 Seminar in Health Care Finance HADM 612 Information Systems for Health Care Management	3	
HADM 608 Seminar in Health Care Finance HADM 612 Information Systems for Health Care Management HADM 615 Health Care Politics and Policy	3	
HADM 608 Seminar in Health Care Finance HADM 612 Information Systems for Health Care Management	3	
HADM 608 Seminar in Health Care Finance HADM 612 Information Systems for Health Care Management HADM 615 Health Care Politics and Policy	3	10
HADM 608 Seminar in Health Care Finance HADM 612 Information Systems for Health Care Management HADM 615 Health Care Politics and Policy HADM 683 Executive Skills II Semester total	3	10
HADM 608 Seminar in Health Care Finance HADM 612 Information Systems for Health Care Management HADM 615 Health Care Politics and Policy HADM 683 Executive Skills II Semester total Spring semester II	3 3 1	10
HADM 608 Seminar in Health Care Finance HADM 612 Information Systems for Health Care Management HADM 615 Health Care Politics and Policy HADM 683 Executive Skills II Semester total	3	10

43

HADM 649 Human Resources Management in Health Care	3
Semester total	9
Total graduate credit hours required (minimum)	48

Medicine, Doctor of (M.D.)/Health Administration, Master of (M.H.A.) [combined]

Graduate program director

Dolores G. Clement, Ph.D., FACHE Professor and director, dual-degree programs dclement@vcu.edu (804) 828-0719

Additional contact

Suzanne C. Havasy Coordinator, M.H.A. program shavasy@vcu.edu (804) 828-0719

Program website: had.vcu.edu/prospective/mha

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Administration, Master of (M.H.A.)

Health Administration, Master of (M.H.A.)/Information Systems, Master of Science (M.S.) [combined]

Health Administration, Master of (M.H.A.)/Juris Doctor (J.D.) from the University of Richmond or Washington and Lee University [combined] Health Administration, Master of Science in (M.S.H.A.)

Students may indicate their interest in the combined program prior to matriculation or during the first three years of the M.D. program.

Advanced study in health administration and medicine is available through a dual-degree program co-sponsored by the Department of Health Administration and the VCU School of Medicine. The program leads to the awarding of the Doctor of Medicine and Master of Health Administration degrees. The objective of the M.D./M.H.A. program is to provide highly motivated medical students the expertise for management and leadership competency in complex health care organizations. The program may be completed in five years. Applicants for this program are required to meet the admission requirements of each program.

For the combined degree program, course work for the M.H.A. is initiated following completion of the first two or three years of the M.D. program, occupies a full academic year (fall, spring and summer) and extends into a second year, and is taken during a hiatus from the third or fourth year of the M.D. program.

Students interested in the program may contact the School of Medicine Office of Curriculum or the director of the M.H.A. program in the Department of Health Administration (School of Allied Health Professions). For additional information refer to the School of Medicine handbook available on the school's Web site at medschool.vcu.edu.

The M.H.A. curricular sequence of the M.H.A./M.D. degree is shown below. Students take a total of 43 credit hours of M.H.A. course work that includes a three-credit hour internship.

Courses	Credit hours
HADM 602 Health System Organization, Financing and	3
Performance	
HADM 606 Health Care Managerial Accounting	3
HADM 607 Financial Management in Health Organizations	3
HADM 610 Health Care Management Decision Support Systems	3
HADM 611 Health Care Law and Bioethics	3
HADM 612 Information Systems for Health Care Management	3
HADM 614 Health Care Marketing	3
HADM 615 Health Care Politics and Policy	3

HADM/ECON 624 Health Economics	3
HADM 646 Health Care Organization and Leadership	3
HADM 647 Management of Health Care Organizations	3
HADM 648 Strategic Management in Health Care Organizations	3
HADM 649 Human Resources Management in Health Care	3
HADM 682 Executive Skills I	1
HADM 693 Internship in Health Administration	3

Total graduate credit hours required (minimum)

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Health Administration, Master of Science in (M.S.H.A.)

Program accreditation

Commission on Accreditation of Health Management Education

Graduate program director

Yasar Ozcan, Ph.D. Professor and director ozcan@vcu.edu (804) 828-7799

Additional contact

Chuky Spivey Coordinator, M.S.H.A. program ckspivey@vcu.edu (804) 828-7799

Program website: had.vcu.edu/prospective/msha

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Administration, Master of (M.H.A.)

Health Administration, Master of (M.H.A.) combined with Doctor of Medicine (M.D.)

Health Administration, Master of (M.H.A.)/Information Systems, Master of Science (M.S.) [combined]

Health Administration, Master of (M.H.A.)/Juris Doctor (J.D.) from the University of Richmond or Washington and Lee University [combined]

Medicine, Doctor of (M.D./Health Administration, Master of (M.H.A.) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Health Administ	ration, Master of Scien	ce in (M.S.H.A.)	
Degree: M.S.H.A.	Semester(s) of entry: Fall	Deadline dates: Mar 1	Test requirements: GRE/GMAT scores on verbal and quantitative at or
			above the 50th percentile
			Applicants who have taken the GRE or
			GMAT in the past
			five years may
			submit previous scores. Those
			applicants holding
			certain graduate or
			professional doctoral
			degrees (M.D.,
			D.D.S., Pharm.D.,
			Ph.D.) may have the
			testing requirement
			waived upon petition.
			TOEFL scores for
			international
			students: score of 600 (paper-based), 250
			(computer-based) or
			100 (Internet-based)
			minimum

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following requirements:

- Baccalaureate degree from an accredited institution of higher education with a 2.75 GPA for all undergraduate work completed
- 2. Transcripts and VCU application forms
- 3. Five years of professional/managerial/health care experience
- 4. Employed in the health care field
- 5 Professional resume
- 6. Three letters of reference
- 7. Interview with M.S.H.A. admissions committee

Applicants with less than a 2.75 undergraduate GPA who have exceptional professional experience will be considered for admission on provisional status. If the applicant has completed any graduate studies (even if a degree was not awarded), performance in such course work will be considered in the admission decision.

Prerequisites: No specific previous course work is required for application. Upon formal acceptance, students will be provided, at cost, independent-study modules in three areas (microeconomics, accounting and statistics) to be completed prior to beginning the program. Applicants having acceptable previous course work in microeconomics, accounting and statistics may not be required to complete these modules. Generally, courses must be completed within five years of starting the program. The M.S.H.A. program begins in July for the fall semester.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The M.S.H.A. program mission is to prepare practicing professionals for management and leadership positions within complex health care organizations.

The overall purpose of the Department of Health Administration is to provide educational programs and service related to the organization and administration of health services. In achieving that purpose, the department's principal functions are to provide high-quality education leading to careers in the administration of health care institutions, agencies and systems and to provide advanced training and education for persons who will teach, plan, evaluate and investigate health care policies and medical care systems. Corollary functions are to provide assistance and other service for community organization and to conduct health services and health policy research.

The mission of the Department of Health Administration is:

- Educating the next generation of health administrators and enhancing the skills of the present generation
- 2. Preparing a new generation of health services researchers and educators
- Creating and disseminating basic and applied knowledge about the management, organization, financing, function and performance of the health care system
- 4. Serving people in the public and private sectors of the health care system

These activities, when mutually reinforced among all key people — faculty, staff, students, alumni/ae — elevate the department to a premier status among similar departments in the United States.

The M.S.H.A. program is designed for self-motivated, mature and experienced professionals who are seeking advanced preparation in management and administrative roles that ultimately lead to executive positions in complex health services organizations. The curriculum emphasizes leadership in career progression as well as strategic and operational management of health care organizations.

Student learning outcomes

Goal/domain	Competency	Description/learning outcomes
Communication and relationship management:		
	Interpersonal communication	Build collaborative relationships and negotiation skills

Writing skills Prepare business **Business and analytical** communications skills Presentation skills Demonstrate effective oral Financial management Demonstrate the ability to communication and compile and analyze financial data; develop presentation skills capital, operating and cash Leadership flow budgets; analyze investment data; pro forma Hold self and others Leading and managing development others accountable for Apply methods and organizational goal Human resources attainment techniques related to the management of health care Change management Promote and manage organization employees and professional staff change Ability for honest self-Demonstrate reflection Organizational dynamics Understand and be able to explain the roles, assessment through self-assessment and governance responsibilities, structures Be able to assess the and influence governing Systems thinking potential impacts and bodies hold in health care consequences of decisions organizations in a broad variety of situations Strategic planning Ability to perform environmental analysis; Problem-solving and Apply evidence-based discern competitive decision-making strategy; formulate decision-making techniques to health care business strategy based on questions evidence **Professionalism** Marketing Analyze and assess markets, market Personal and professional Adhere to ethical business segmentation, strategy, ethics principles; exhibit ethical change and innovation behaviors Information management/ Apply techniques and Professional and Participate in community understanding and using methods to plan, design, community contribution service; balance technology skills implement and assess professional and personal information flow and pursuits communication Working in teams Create, participate in and Quality improvement/ Apply concepts of process lead teams, including interperformance improvement improvement and patient professionalism safety to relevant problems Knowledge of the health Quantitative skills Analyze data and interpret care environment quantitative information Health care issues and Demonstrate knowledge of Planning and managing Design, plan, implement trends circumstances causing and assess projects related projects major changes and reform to performance, structure in U.S. health care delivery and outcomes of health services Discuss and critically Health care legal analyze health-related legal principles Economic analysis and Analyze and apply principles including application economic theory and standards, regulations and concepts to business risk management. decisions Health policy Articulate the impact of Degree requirements select health policies on The M.S.H.A. program is designed to meet the distinctive needs of the the delivery of health experienced health care professional. Courses develop business skills for the services unique health care environment so that students are prepared to meet the challenges of the health care marketplace. Classes draw upon the knowledge of the Population health and Understand and explain the

status assessment

major factors in health status to health care

professionals

faculty and the diverse group of experienced professionals enrolled.

In addition to general VCU Graduate School graduation requirements, students are

required to complete 14 courses, a total of 41 credit hours (including transfer credit hours, if any), to qualify for the Master of Science in Health Administration degree. Each semester is composed of both on-campus and off-campus sessions.

During the six, approximately week-long, on-campus sessions, students attend professional program classes on the MCV Campus. During off-campus sessions, students continue studies at their homes or work sites, employing a variety of online technologies. Students must successfully complete an integrative capstone case to complete the degree. The competency model utilized by the M.S.H.A. program is operationalized in curricular offerings in the development of learning objectives for individual courses.

Curriculum requirements

Courses		Credit hours
HADE 602 Health Systems Organization, Financing and	3	
Performance		
HADE 606 Health Care Managerial Accounting	3	
HADE 607 Financial Management in Health Organizations	3	
HADE 609 Managerial Epidemiology	2	
HADE 610 Health Care Management Decision Support Systems	3	
HADE 611 Health Care Law and Bioethics	3	
HADE 612 Information Systems for Health Care Management	3	
HADE 614 Health Care Marketing	3	
HADE 615 Health Care Politics and Policy	3	
HADE 624 Health Economics	3	
HADE 646 Health Care Organization and Leadership	3	
HADE 647 Management of Health Care Organizations	3	
HADE 648 Strategic Management in Health Care Organizations	3	
HADE 649 Human Resources Management in Health Care	3	
Total graduate credit hours required (minimum)		41

Sample plan of study

Full-time enrollment

Courses		Credit hours
First semester (fall)		
HADE 602 Health Systems Organization, Financing and	3	
Performance		
HADE 624 Health Economics	3	
HADE 646 Health Care Organization and Leadership	3	
Second semester (spring)		
HADE 606 Health Care Managerial Accounting	3	
HADE 610 Health Care Management Decision Support Systems	3	
HADE 615 Health Care Politics and Policy	3	
HADE 647 Management of Health Care Organizations	3	
Third semester (fall)		
HADE 607 Financial Management in Health Organizations	3	
HADE 609 Managerial Epidemiology	2	
HADE 611 Health Care Law and Bioethics	3	
HADE 612 Information Systems for Health Care Management	3	
Fourth semester (spring)		
HADE 614 Health Care Marketing	3	
HADE 648 Strategic Management in Health Care Organizations	3	
HADE 649 Human Resources Management in Health Care	3	
Total graduate credit hours required (minimum)		41

Sample plan of study

Part-time enrollment

Recognizing the challenge that full-time enrollment brings to busy careers and personal lives, the department offers a part-time enrollment option in the M.S.H.A. program. Part-time students generally enroll in six or eight credit hours per semester and spend an additional 10 months in classes in the program. The recommended part-time schedule is shown below.

Courses	Credit hours
Fall 1	
HADE 602 Health Systems Organization, Financing and Performance	3
HADE 624 Health Economics	3
Spring 1	
HADE 606 Health Care Managerial Accounting	3
HADE 615 Health Care Politics and Policy	3
HADE 647 Management of Health Care Organizations	3
Fall 2	
HADE 607 Financial Management in Health Organizations	3
HADE 646 Health Care Organization and Leadership	3
Spring 2	
HADE 610 Health Care Management Decision Support Systems	3
HADE 614 Health Care Marketing	3
Fall 3	
HADE 609 Managerial Epidemiology	2
HADE 611 Health Care Law and Bioethics	3
HADE 612 Information Systems for Health Care Management	3
Spring 3	
HADE 648 Strategic Management in Health Care Organizations	3
HADE 649 Human Resources Management in Health Care	3
Total graduate credit hours required (minimum)	41

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

All enrolled students will receive a student handbook at orientation.

Health Services Organization and Research, Doctor of Philosophy (Ph.D.)

Graduate program director

Jan P Clement Ph D Professor and director jclement@vcu.edu (804) 828-7799

Additional contact

Chuky Spivey Program coordinator ckspivey@vcu.edu (804) 828-7799

Program website: had.vcu.edu/prospective/phd

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Health Services Organization and Research, Doctor of Philosophy (Ph.D.)			
Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE or GMAT
	Fall only	Mar 15	
			International
		Applications received	students: TOEFL
		by Dec 15 are given priority for funding	
		(Applications	
		reviewed throughout	
		year)	
Special require	ements:		

Candidates with one to two years' experience in the health care industry preferred

A part-time enrollment option, which requires three years of course work prior to the dissertation research, is also available.

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following minimum acceptable standards for admission:

- 1. Graduate degree (in an academic or professional field) with a minimum GPA
- Working knowledge of college-level algebra
- Advanced courses in statistics and economics
- GRE/GMAT scores on verbal and quantitative at or above the 50th percentile
- TOEFL scores required for international students
- Transcripts and VCU application forms
- Three letters of reference
- Personal interview with HSOR admissions committee

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and

> General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Ph.D. in Health Services Organization and Research program is designed to prepare individuals for careers in teaching, research and consulting at the highest level of capability in the field of health care organizational analysis and health services research. Graduates will be competitive for positions at the nation's top research and teaching institutions, governmental agencies and health care organizations.

Student learning outcomes

Dimension

Foundational knowledge of health care	Display comprehensive knowledge of the context of health care systems, institutions, actors and environment
Theoretical knowledge	Apply organizational theoretical and conceptual models relevant to health services research
Generate research questions and hypotheses	Review, critique and synthesize a body of research, identifying significant gaps in knowledge, methods and study subjects to develop research questions and testable hypotheses
Study design	Select appropriate interventional (experimental and quasi- experimental) or observational (quantitative, qualitative or mixed) study designs to address health services research questions Use a conceptual model to specify study constructs and develop valid and reliable variables to measure the constructs
Data collection and management	Sample and collect primary health and health care data and/or assemble and manage existing data from public or private sources
•	Describe procedures that ensure the ethical and responsible conduct and dissemination of research
Data analysis and interpretation	Apply rigorous quantitative and qualitative analytical strategies to specific research questions Demonstrate ability to interpret results of data analysis
Communication and knowledge transfer	Effectively communicate issues, research findings and implications of health services research verbally and in writing to appropriate professional, scientific, student, policy and lay audiences
Integration	Develop and conduct original research that includes identifying the research question, selecting the theoretical framework, developing a study design, using appropriate methodologies,

The doctoral program is designed to meet the professional development needs of:

conducting the analysis and interpreting the results

- Researchers, educators and policy analysts who want to develop in-depth theoretical and research capabilities about health services organizations
- Clinical professionals who want to acquire a broader perspective on health care organizations and systems and to develop applied research skills in health services organization
- Administrative professionals who want to prepare for positions as consultants or researchers in complex health organizations

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must complete a minimum of 57 credit hours of course work. This includes 48 hours in four major areas of study and nine hours of dissertation study. Students take two written comprehensive examinations, covering health services organization and theory and health services research methods. Nine credit hours of foundation course work are required, in three courses covering health care organization, health economics, and health care financing and delivery systems. The program director and admissions committee may waive some of these courses. However, the credit hours required for the program are not reduced.

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Curriculum requirements

Courses	Credit hours
P 1.6	0
Foundation courses	9
HADM 602 Health System Organization, Financing and Performance	3
HADM 624 Health Economics	3
HADM 702 Health Care Financing and Delivery Systems	3
Ç , ,	
Health services organization theory courses	12
HADM 701 Organizational Behavior for Health Services Research	3
HADM 704 Foundations of Health Service Organization Theory	3
HADM 705 Advanced Health Service Organization Theory	3
Theory elective (See list below.)	3
· · · · · · · · · · · · · · · · · · ·	
Health services research methods courses	
Includes content on such topics as design and analysis, research	18
methods, causal thinking, and multivariate statistical analysis	
ECON 501 Introduction to Econometrics	3
ECON 612 Econometrics	3
HADM 760 Quantitative Analysis of Health Care Data	3
HADM 761 Health Services Research Methods I	3
HADM 763 Health Program Evaluation	3
Method electives (See list below.)	3
Specialization courses With adviser's assistance, students choose three elective courses that comprise an area of specialization. Courses are generally drawn from other VCU programs and independent study with department faculty. (See list below.)	9
Dissertation research	9 (minimum)
HADM 898-899 Doctoral Dissertation in Health Services	9 (minimum)
Organization and Research) (IIIIIIIIII)
Total graduate credit hours required (minimum)	57
*Elective courses	
Theory elective courses	
BUSN 700 Principles of Scientific Inquiry in Business	3
EPID 600 Introduction to Public Health	3
MGMT 743 Organizing Systems	3
MGMT 750 Attitudes and Motivation in Organizations	3
MGMT 757 Corporate Strategy and Long-range Planning	3
Methods elective courses	
Methods elective courses	
BIOS 524 Biostatistical Computing	3
ECON 642 Panel and Nonlinear Methods in Econometrics	3
EDUS 711 Qualitative Methods and Analysis	3

MGMT 691 Topics in Management PPAD 722 Survey of Data Analysis Techniques in Public Policy SBHD 610 Behavioral Measurement SCMA 632 Statistical Analysis and Modeling STAT 675 Times Series Analysis I	3 3 3 3
Specialization elective courses	
(other electives may be approved by adviser)	
BIOS 524 Biostatistical Computing	3
BUSN 700 Principles of Science Inquiry in Business	3
ECON 642 Panel and Nonlinear Methods in Econometrics	3
EDUS 711 Qualitative Methods and Analysis	3
ENVS 691 Topics in Environmental Studies	3
EPID 600 Introduction to Public Health	3
MGMT 691 Topics in Management	3
MGMT 743 Organizing Systems	3
PPAD 722 Survey of Data Analysis Techniques in Public Policy	3
SBHD 610 Behavioral Measurement	3
SCMA 632 Statistical Analysis and Modeling	3
STAT 675 Times Series Analysis I	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

All enrolled students will be provided a handbook at orientation.

Department of Nurse Anesthesia

The program was first organized in 1969 as the School of Nurse Anesthetists, thus becoming the first academic program to be implemented in the newly organized School of Allied Health Professions on the MCV Campus.

A letter of intent for a proposed Master of Science in Nurse Anesthesia program was submitted to the commonwealth's Council on Higher Education in 1977. When approved in May 1978, the graduate degree in nurse anesthesia became the first such offering within the profession of nurse anesthesia. While of major

importance to the university, it marked a significant milestone for the profession of nurse anesthesia. The first class of graduate students was admitted in the fall of 1979 and graduated in the fall of 1981. A second hallmark was achieved in 2007 with approval of the Doctor of Nurse Anesthesia Practice program. The DNAP program is the first post-master's practice doctorate for Certified Registered Nurse Anesthetists. A separate combined-degree track is available for students enrolled in the Master of Science in Nurse Anesthesia program. The first students matriculated in the combined degree MSNA-DNAP program in 2007 and the first CRNAs entered the post-master's DNAP program in January 2008.

Administration

Michael D. Fallacaro

Professor and Department Chair

Mission and philosophy

Mission

The mission of Virginia Commonwealth University is to provide a fertile and stimulating environment for learning, teaching, research, creative expression and public service. Essential to the life of the university is a faculty actively engaged in scholarship and creative exploration — activities that increase knowledge and understanding of the world and that inspire and enrich teaching.

The university is dedicated the educating full- and part-time students of all ages and diverse backgrounds in an atmosphere of free inquiry and scholarship so that they may realize their full potential as informed, productive citizens with a lifelong commitment to learning and service.

The mission of the Department of Nurse Anesthesia is to provide learners with the knowledge and skills necessary to serve the public through the delivery of safe, cost-efficient, quality anesthesia services and to develop leaders and scholars who will advance the specialty of nurse anesthesia through research, scholarship and public service. The department will achieve this mission by establishing an environment that values excellence, stimulates creativity and recognizes achievement.

Philosophy

The philosophy of the department reflects the core values of the faculty and provides the foundation for the curriculum. The department's philosophy is synergistic with the mission and goals of VCU and the School of Allied Health Professions.

The department is a social agency dedicated to the education and development of health care professionals in the specialty of nurse anesthesia. Consequently, the faculty recognizes and accepts the responsibility entrusted to it for the learning experiences for its graduate students.

The philosophical orientation of the faculty subscribes to the belief that learning is a developmental process through which cognitive, affective and psychomotor behaviors are developed and modified. This process includes the acquisition of information, the transfer and application of knowledge, the evaluation of new skills, and the development of a professional attitude and bearing.

The faculty subscribes to the belief that the learning process is both positive and rewarding for the student; that it is a transaction between the student and teacher executed through formal and informal processes with an objective to prepare knowledgeable and skillful graduates. Hence, learning is a lifelong process that results in a change in thinking, valuing and behaving. The educational process includes teacher-learner interaction in setting goals, selecting and assessing learning experiences, determining instructional methods, and evaluating the learner's progress. Learning experiences are designed to facilitate continuity in attainment of knowledge, skills and attitudes consistent with educational objectives, the individual needs of students and safe patient care. Students are respected as unique individuals possessing dignity, worth and the right to equity in educational opportunities. Faculty and students share the responsibility for creating an educational climate that reflects democratic values, fosters intellectual inquiry and creativity, and encourages the maximum development of each individual's potential.

The American health care system is becoming progressively complex. Technological advances and changing economic patterns foster competition for scarce resources while the patient population is becoming quite diverse. As a result, the role of the CRNA is becoming increasingly collaborative and complementary with other health professionals. In this environment, CRNAs have

more responsibility and authority for coordination, decision-making and leadership of the multidisciplinary team, as well as for research, planning and development of health resources.

Graduate education in nurse anesthesia at the master's level builds upon baccalaureate education with a nursing focus. It is designed to allow graduates the opportunity to become leaders and make significant contributions with the intended outcome of improving health care and advancing nurse anesthesia theory and practice through research. Consequently, the program prepares CRNAs through a team concept of a joint practice of anesthesia care composed of both nursing and medical components to meet the current and emerging health needs of society.

Nurse anesthesia courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow these links to nurse anesthesia (NRSA) courses or the (NRSZ) laboratory.

Nurse Anesthesia Practice, Doctor of (D.N.A.P.)

Program accreditation

Council on Accreditation of Nurse Anesthesia Educational Programs

Graduate program director

Michael D. Fallacaro, D.N.S., C.R.N.A. Professor and chair, Department of Nurse Anesthesia mdfallac@vcu.edu (804) 828-9808

Additional contact

Suzanne M. Wright, Ph.D., C.R.N.A. Associate professor and assistant program director smwright@vcu.edu (804) 828-9808

Program website: sahp.vcu.edu/nrsa

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Nurse Anesthesia, Master of Science in (M.S.N.A.)

Nurse Anesthesia Practice, Doctor of (D.N.A.P.)/Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in nurse anesthesia [sequential degrees]

Nurse Anesthesia Practice, Doctor of (D.N.A.P.)/Nurse Anesthesia, Master of Science in (M.S.N.A.) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements:
D.N.A.P.	entry:		Graduate Record
	Fall only	Mar 1	Examination within
	-		five years of
			application

for fall entry.

In addition to the general admission requirements of the VCU Graduate School, applicants must present the following minimum qualifications:

- 1. A graduate degree from an accredited university
- Graduation from a nurse anesthesia educational program accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs
- Certification by the National Board of Certification and Recertification for Nurse Anesthetists
- Recertification by the National Board of Certification and Recertification for Nurse Anesthetists (if applicable)
- Current licensure as a registered nurse and advanced practice nurse (as applicable)

- 6. A minimum cumulative graduate GPA of 3.0 on a 4.0 scale
- 7. Graduate Record Examination General Test within five years of application
- 8. Personal statement including:
 - a. Reasons for seeking this educational opportunity
 - b. Career goals and how this degree will aid in that process
 - Prior lifework experience that will contribute to your success in the program
 - d. Potential areas of interest for the capstone project
- 5. Completed Graduate School application
- 6. Three professional references
- 7. Personal interview (by invitation)

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The mission of the Department of Nurse Anesthesia is to provide learners with the knowledge and skills necessary to work as part of an interprofessional team to serve the public through the delivery of safe, cost-efficient, quality anesthesia services and to develop leaders and scholars who will advance the specialty of nurse anesthesia through research, scholarship and public service. The department achieves this mission by establishing an environment that values excellence, stimulates creativity and recognizes achievement.

Student learning outcomes

The overall objective of the Doctor of Nurse Anesthesia Practice program is to prepare graduates who have acquired knowledge, skills and competencies in patient safety, perianesthetic management, critical thinking and communication to fulfill their professional responsibility as certified nurse anesthetists.

Upon completion of the program, the graduate will:

- 1. Apply physiological, safety and organizational theories to promote patient safety, enhance quality care and improve nurse anesthesia practice
- Analyze and synthesize relevant scientific literature and apply results to improve nurse anesthesia practice and patient care outcomes in a culturally sensitive manner
- Communicate effectively with patients, families, the public and other health professionals
- 4. Demonstrate leadership skills to meet the challenges of increasingly complex health care and educational environments impacting nurse anesthetists
- 5. Develop effective strategies for managing ethical dilemmas inherent in anesthesia patient care and the workplace
- Employ teaching and learning principles for the nurse anesthetist in educating and counseling individuals, families, students-in-training and groups

- Demonstrate nurse anesthesia scholarship through presentations, publications, leadership activities and collaboration with other disciplines
- 8. Utilize technology and information systems to analyze, manage and present

Degree requirements

In addition to general VCU Graduate School graduation requirements, candidates for the degree of Doctor of Nurse Anesthesia Practice must be recommended by the faculty and:

- 1. Complete all requirements for the prescribed curriculum
- 2. Complete a capstone project
- 3. Earn a minimum GPA of 3.0 in all courses
- 4. Earn a minimum cumulative GPA of 3.0 in all work presented for graduation

Curriculum requirements

Courses		Credit hours
ALHP 708 Ethics and Health Care	3	
ALHP 760 Biostatistical Methods for Health Related Sciences	3	
DNAP/NRSA 701 Human Factors and Patient Safety for Nurse	3	
Anesthetists		
DNAP 702 Nurse Anesthesia Patient Safety Seminar	3	
DNAP 703 Health Services Delivery Systems for the Nurse	3	
Anesthetist		
DNAP 711 Policy and Practice for Nurse Anesthetists	3	
DNAP 712 Leadership in Nurse Anesthesia Education	3	
DNAP 789 Nurse Anesthesia Professional Practice	6	
DNAP 799 Nurse Anesthesia Capstone Project	6	
Total graduate credit hours required (minimum)		33

Full-time and part-time planned courses of study

•		-
Courses		Credit hours
Full-time curriculum – one-year program		Credit hours
Fall semester		
ALHP 708 Ethics and Health Care	3	
ALHP 760 Biostatistical Methods for Health Related Sciences	3	
DNAP/NRSA 701 Human Factors and Patient Safety for Nurse Anesthetists	3	
DNAP 789 Nurse Anesthesia Professional Practice	3	
Semester total		12
Spring semester		
DNAP 702 Nurse Anesthesia Patient Safety Seminar	3	
DNAP 703 Health Services Delivery Systems for the Nurse Anesthetist	3	
DNAP 711 Policy and Practice for Nurse Anesthetists	3	
DNAP 799 Nurse Anesthesia Capstone Project	2	
Semester total		11
Summer semester		
DNAP 712 Leadership in Nurse Anesthesia Education	3	
DNAP 789 Nurse Anesthesia Professional Practice	3	
DNAP 799 Nurse Anesthesia Capstone Project	4	

Semester total		10
Total graduate credit hours required (minimum)		33
Part-time curriculum – two-year program		Credit hours
Fall semester I	_	
ALHP 708 Ethics and Health Care DNAP/NRSA 701 Human Factors and Patient Safety for Nurse Anesthetists	3	
Semester total		6
Spring semester I		
DNAP 702 Nurse Anesthesia Patient Safety Seminar	3	
DNAP 703 Health Services Delivery Systems for the Nurse Anesthetist	3	
Semester total		6
Summer semester I		
DNAP 712 Leadership in Nurse Anesthesia Education	3	
DNAP 789 Nurse Anesthesia Professional Practice	3	
Semester total		6
Fall semester II		
ALHP 760 Biostatistical Methods for Health Related Sciences	3	
DNAP 799 Nurse Anesthesia Capstone Project	2	
Semester total		5
Spring semester II		
DNAP 711 Policy and Practice for Nurse Anesthetists	3	
DNAP 799 Nurse Anesthesia Capstone Project	2	
Semester total		5
Summer semester II		
DNAP 789 Nurse Anesthesia Professional Practice	3	
DNAP 799 Nurse Anesthesia Capstone Project	2	
Semester total		5
Total graduate credit hours required (minimum)		33

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student handbooks are made available to students upon enrollment through a secure link on the department website.

Nurse Anesthesia Practice, Doctor of (D.N.A.P.)/Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in nurse anesthesia [sequential degrees]

Graduate program director

Paula K. Kupstas, Ph.D. Associate professor and director pkupstas@vcu.edu (804) 828-1914

Additional contact

Monica L. White Program coordinator mlwhite1@vcu.edu (804) 828-3273

Program website: sahp.vcu.edu/phd

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in clinical laboratory sciences

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in gerontology

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in health care outcomes research

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in nurse anesthesia

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in occupational therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in patient counseling

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in physical therapy

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in radiation sciences

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in rehabilitation leadership

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Health Related Sciences, Doctor of Philosophy (Ph.D.), Doctor of Nurse Anesthesia Practice (D.N.A.P.) to health related sciences sequential degree concentration

Degree:	Semester(s) of	Deadline dates:	Test requirements:
Ph.D.	entry:		
	Fall (begins end of Jun)	Mar 15 (application deadline)	GRE or MAT
	,	· · · · · · · · · · · · · · · · · · ·	Tests must have been
			taken within the past
			five years.

Special requirements:

When applicable, applicants must have a minimum Test of English as a Foreign Language score of 600. The Ph.D. program in health related sciences utilizes two six-month semesters per year (January through June and July through December), which include both on- and off-campus components.

Students interested in the sequential Doctor of Nurse Anesthesia Practice to Ph.D. in Health Related Sciences concentration must first be admitted to the D.N.A.P. program. Matriculated D.N.A.P. students who wish to enter the combined concentration may apply to the Ph.D. program during the semester preceding graduation from the D.N.A.P. program. Applicants must meet the admission requirements and prerequisites of both programs, be enrolled in the D.N.A.P. program and have demonstrated satisfactory academic performance and professionalism.

Refer to the program search function of the online VCU Bulletins for complete information about the D.N.A.P. program

In addition to the general admission requirements of the VCU Graduate School, applicants to the Ph.D. program must meet the following criteria:

- Have an earned master's degree in an academic or allied health-related field from an accredited college or university; preference will be given to applicants who have a minimum cumulative GPA of 3.3 on master's-level work (The master's degree should be in one of the departmental areas of choice of concentration.)
- 2. Have GRE (verbal, quantitative and analytic writing) or MAT scores from within the past five years
- 3. Have completed a graduate course in statistics with a minimum grade of B
- 4. Demonstrate a record of professional competency and success
- Articulate clear professional and educational goals and written communication skills through the submission of a written essay
- 6. Have any additional qualifications/certifications of the individual concentrations

Prior to reviewing an application for admission, the program must receive:

- 1. A completed application form from the applicant, including:
 - a. Three letters of recommendation, two of which preferably are from sources qualified to assess the candidate's academic potential
 - A written essay that discusses career goals and the manner in which this
 doctoral program will enhance those goals and what the applicant
 expects to contribute to this program
 - c. A curriculum vitae
- Official transcripts indicating completion of baccalaureate and master's degrees (or equivalent) from an accredited college or university
- 5. GRE or MAT scores

Incomplete packages may not be reviewed. Materials are sent to the Graduate Admissions office for processing and then forwarded to the School of Allied Health Professions. Once received in the school, the application is reviewed for completeness. Applicants with incomplete files will be contacted regarding the missing materials. Incomplete files will be held in the director's office until all materials are received.

Completed folders will be sent to the respective departmental representative of the School of Allied Health Professions Doctoral Program Advisory Committee. Departments will then rank qualified applicants and, based on a review of the file, a personal interview will be scheduled at the department's discretion for the top candidates. Following the departmental ranking, all files will be returned to the director's office.

The DPAC will meet to select and recommend the incoming class. The director and the dean of the School of Allied Health Professions are responsible for the final decision.

Applicants will be notified by the Graduate Admissions office regarding the admission decision and of the deadline for their acceptance of the offer and holding fee.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission/purpose

The Ph.D. in Health Related Sciences program will provide experienced health professionals with advanced knowledge and skills so that they may assume positions in teaching, research and administration upon graduation. It offers a curriculum with an interdisciplinary core of courses with concentrations in clinical laboratory sciences, gerontology, health care outcomes research, nurse anesthesia, occupational therapy, patient counseling, physical therapy, radiation sciences and rehabilitation leadership. The program emphasizes use of distance-learning technologies combined with traditional didactic methods. The curriculum is relevant, timely and meaningful to a multidisciplinary cohort of students.

The sequential D.N.A.P. to Ph.D. concentration meets the growing interest and needs of those D.N.A.P. students who require a research doctorate. The program integrates content specific to the clinical doctorate with content specific to the research doctorate where the Ph.D. portion of the program begins following successful completion of the D.N.A.P. The objective of the program is to prepare certified registered nurse anesthetists holding master's degrees for careers in nurse anesthesia leadership, education and research. Students in this concentration will benefit from taking three courses that are shared between the two individual programs and are able to satisfy program requirements, in part, through distance technology while continuing to maintain their current family and employment obligations.

Student learning outcomes

Students completing this doctoral program will:

- Demonstrate the ability to conduct research, understand issues, design and execute research plans, analyze research results, and present conclusions in the area of interdisciplinary health care using the appropriate methods
- 2. Demonstrate an in-depth knowledge in the area of specialization
- Exhibit competency in translating research knowledge and principles into applied practice perspectives and skills
- Display educational expertise in current principles and content of the allied health sciences and teach in the area of interdisciplinary health care practice
- 5. Display the ability to examine current issues and future changes in the health care environment from an interdisciplinary perspective
- Exhibit knowledge and understanding of professional and ethical responsibility and conduct in the allied health professions

Demonstrate knowledge and understanding of the importance of cultural diversity in the delivery of health care and the formulation of health policy

Degree requirements

Students in the D.N.A.P. program apply to the Ph.D. in Health Related Sciences program during the last semester in the D.N.A.P. program. Once accepted into the Ph.D. program, students continue with the curriculum as described.

In addition to general VCU Graduate School graduation requirements, students must successfully complete a total of 75 credit hours (33 credit hours from the D.N.A.P. program and 51 credit hours from the Ph.D. program minus nine credit hours for three shared courses). The Ph.D. curriculum includes 18 credit hours of common interdisciplinary core courses, 12 credit hours of research methods core courses, nine credit hours of specialty track (courses shared with the D.N.A.P. program),12 credit hours of dissertation research, two comprehensive examinations, a research proposal defense and the final dissertation defense.

Continuation requirements

After admission to the Ph.D. program, the student must maintain a minimum cumulative GPA of 3.0 in all of the course work completed at VCU. A student who falls below that minimum will have one semester to remedy the deficiency. Even with an overall minimum GPA of 3.0, a student may earn no more than two (six credit hours) grades of C. Students who receive a grade of D or F will be reviewed for continuation in the program by the department of their concentrations.

Students are expected to maintain continuous enrollment while in the program. Following the completion of the core course work, students must register for at least one credit hour each fall and spring semester for continuation in the program. A student who fails to register must have advance approval to do so or will be dropped automatically from the program and must reapply for reinstatement. The maximum time to complete all of the requirements for the degree is eight calendar years from the date of entry into the program.

Course transfer or waiver

A maximum of 25 percent of the course work other than research may be transferred from another VCU program or outside institution and applied toward the degree requirements. Transfer and waiver credit is given at the discretion of the program director after consultation with appropriate faculty members, subject to university approval. Courses taken as requirements for other degrees are not transferable, unless approved as part of a combined degree program. A waiver may be warranted if an equivalent course was taken. However, another course must be substituted for the waived course in order to fulfill the requisite credit hours needed for degree completion.

Comprehensive examination

The purpose of the comprehensive examination is to provide a vehicle through which students can demonstrate the ability to integrate their educational experiences by adequately addressing complex questions pertinent to the current and developing knowledge of the allied health fields. Students are eligible to take each of the two comprehensive examinations upon successful completion of the appropriate core course work. The core exam must be taken within six months of completing the methods exam.

Two written examinations will be administered, one for the common interdisciplinary core and one for the research methods core. A three-member graduate faculty committee will develop and administer each exam. This committee will be made up of two members of the core advisory committee and one member appointed by the program director. Each exam will be offered once in the fall semester and once in the spring semester. Prior to completion of the semester in which students become eligible to take each exam, they must submit a formal statement of intent to the program coordinator.

Students who receive a failing grade on the initial attempt will have one opportunity to repeat each comprehensive examination. Failure to pass an exam on the second attempt will result in dismissal from the program.

Curriculum structure

The Ph.D. program curriculum is designed to take four years to complete. Students spend the first two and one-half years (six-month-long semesters) completing course work. The final year and one-half is spent developing the doctoral dissertation. Research components are present in each year of the program, and a research emphasis is present throughout the entire curriculum. Students are

required to designate the area of intended research in their concentration areas in the first year.

Each of the five course-work semesters is composed of both on- and off-campus components. On-campus sessions, scheduled during the end of June and beginning of July and at the beginning of January, will employ a rather traditional mix of educational technologies (e.g., lectures, seminars and assigned reading). During the off-campus component of each semester, students pursue their studies employing a wide variety of innovative educational technologies (e.g., computer conferencing, computer-aided instruction, videotape packages and programmed instructional material), in addition to assigned readings and the completion of various assignments and projects. Upon completion of the five semesters of course work, students are required to return to campus each semester until a research proposal has been developed and successfully defended.

Advising

Upon admission to the program, students will be assigned an interim adviser to guide them through the core courses and assist them as they consider their areas of research. All program advisers will have an earned doctorate and be members of the university's graduate faculty.

Students may change their interim advisers as their programs of study and interests evolve, if approved by the program director. Although discouraged, some students may wish to switch their area of concentration (changing from the department through which they were initially admitted to the program). Students who want to change concentration areas must petition the doctoral program director. The petition must be approved by the program director, the DPAC and the appropriate department chair. There is no guarantee that the applicant will be accepted into the new concentration.

After successful completion of the comprehensive examinations, students will choose a dissertation chair that will serve as adviser and guide them through the research/dissertation process.

Computer requirements

All students admitted to the program must have access to a personal computer and a DSL or cable modem. Once admitted to the program, it is recommended that students who do not feel proficient in computer skills enroll in a basic computer course to become comfortable with use of the Internet and with the basics of document processing software.

Admission to candidacy

Students are eligible to begin their dissertations upon written certification by the program director and associate dean of the Graduate School that all predissertation/research requirements, including the comprehensive examinations, have been satisfied and that the student is prepared to proceed with the dissertation/research project. Copies of the certification will be forwarded to the student, the student's formal program adviser and the dean of the School of Allied Health Professions. After admission to candidacy, students will proceed to propose, complete and defend their dissertations or three journal articles research requirement.

Enrollment requirement

Students are required to maintain continuous enrollment in ALHP 899 Dissertation Research until completion of the requirements, including the defense process.

Dissertation/research committee

After successful completion of the comprehensive exam, the student nominates a dissertation/research committee, and the dissertation/research director submits the nominations in writing to the program director. Such committees will consist of a minimum of four graduate faculty members, one of whom will be outside the student's concentration area. The program director will provide written approval of the dissertation/research committee and clear such appointments with the appropriate administrative officials.

Dissertation/research standards

The dissertation or publishable research articles must represent independent research and should be based on an original research question or hypothesis. Generally, dissertations or publishable research articles will demonstrate the student's ability with empirical research, adhering to canons of (1) logic in conceptualization and design, (2) valid and reliable measurement, (3) appropriate analytic technique and (4) appropriate interpretation of results. Studies should be based on a formal theoretical or conceptually explicit framework for investigating a question or testing a hypothesis relevant to the allied health field.

Curriculum requirements

Courses	Credit hours
ALHP 702 Finance and Economic Theory for Health Care	3
ALHP 708-002 Ethics and Health Care	3
ALHP 712 Curriculum and Communication Design for Health Care Professionals	3
ALHP 716 Grant Writing and Project Management in Health Related Sciences	3
ALHP 718 Health Informatics	3
ALHP 760-002 Biostatistical Methods for Health Related Sciences	3
ALHP 761 Health Related Sciences Research Design	3
ALHP 762 Multivariate Statistical Methods for Health Related Sciences Research	3
ALHP 763 Clinical Outcomes Evaluation for Health Related Sciences	3
ALHP 781-004 Doctoral Seminar in Health Related Sciences	3
ALHP 792-804 Independent Study	1-4 (3 required)
ALHP 793-004 Research Practicum	3
ALHP 890 Dissertation Seminar	3
ALHP 899-804 Dissertation Research	9
DNAP 703 Health Care Delivery Systems for the Nurse Anesthetist	3
Total graduate credit hours required (minimum)	51

Sample plan of study

Courses	Credi hour	
D.N.A.P. program requirements, fall semester II ALHP 708-002 Ethics and Health Care	3	

D.N.A.P. program requirements, spring semester II

DNAP 703 Health Care Delivery Systems for the Nurse Anesthetist 3

D.N.A.P. program requirements, fall semester III ALHP 760-002 Biostatistical Methods for Health Related Sciences 3

Ph.D. in Health Related Sciences, semester 1

ALHP 712 Curriculum and Communication Design for Health Care 3 Professionals

Ph.D. in Health Related Sciences, semester 2

3

3

3

ALHP 702 Finance and Economic Theory for Health Care

ALHP 763 Clinical Outcomes Evaluation for Health Related

ALHP 781-004 Doctoral Seminar in Health Related Sciences

ALHP 761 Health Related Sciences Research Design	3
ALHP 762 Multivariate Statistical Methods for Healh Related	3
Sciences Research	
Ph.D. in Health Related Sciences, semester 3	
ALHP 718 Health Informatics	3

Methods comprehensive exam

Ph.D. in Health Related Sciences, semester 4

ALHP 716 Grant Writing and Project Management in Health Related Sciences

ALHP 890 Dissertation Seminar

Core comprehensive exam

Ph.D. in Health Related Sciences, semester 5

ALHP 792-804 Independent Study	1-4 (3
	required)
ALHP 793-004 Research Practicum	3
ALHP 899-804 Dissertation Research	1-9 (9
	required)

3

Ph.D. in Health Related Sciences, semester 6

ALHP 899-804 Dissertation Research variable

Ph.D. in Health Related Sciences, semester 7

ALHP 899-804 Dissertation Research variable

Ph.D. in Health Related Sciences, semester 8

ALHP 899-804 Dissertation Research variable

Dissertation and published research requirements

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Program completion requirements

The doctor of philosophy degree is awarded after (1) the minimum 51 credit hours of course work are completed, (2) comprehensive exams are passed, and (3) either a dissertation is written and defended orally or three first-author articles of publishable quality (on research undertaken by the doctoral candidate once enrolled in the program) are written and defended orally. The journal articles will be scrutinized for quality of scholarship by an internal research committee headed by the student's research adviser. All three articles must be approved by the internal research committee prior to submission.

Other information

Student handbook

A student handbook will be made available to all admitted students in their cohort organizations in Blackboard.

Sciences

Facilities

The administrative offices for the program are located on the MCV Campus, at 1200 E. Broad St. (West Hospital, First Floor, East Wing).

Nurse Anesthesia Practice, Doctor of (D.N.A.P.)/Nurse Anesthesia, Master of Science in (M.S.N.A.) [combined]

Program accreditation

Council on Accreditation of Nurse Anesthesia Educational Programs

Graduate program director

Michael D. Fallacaro, D.N.S., C.R.N.A. Professor and chair, Department of Nurse Anesthesia mdfallac@vcu.edu (804) 828-9808

Additional contact:

June 1 for fall entry.

Suzanne M. Wright, Ph.D., C.R.N.A. Associate professor and assistant program smwright@vcu.edu (804) 828-9808

Program website: sahp.vcu.edu/nrsa

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements:
	entry:		Graduate Record
M.S.N.A	Fall only	Jun 1	Examination
D.N.A.P.			

Master of Nurse Anesthesia students with a minimum GPA of 3.25 are eligible to apply to the combined M.S.N.A. and D.N.A.P. program during the third semester of study. Students enrolled in the M.S.N.A./D.N.A.P. combined degree option will graduate with the master's degree in nurse anesthesia at the end of the seven-semester, 28-month master's curriculum and take the national certification exam. These students will then continue their doctoral studies (largely via distance) in the eighth semester (spring) to graduate with the Doctor of Nurse Anesthesia Practice degree at the end of the eighth semester.

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following requirements:

- Currently enrolled and in good academic standing in VCU's M.S.N.A. program
- Current licensure as a registered nurse and advanced practice nurse (as applicable)
- 3. A cumulative minimum graduate GPA of 3.25 on a 4.0 scale
- 4. Graduate Record Examination general test within five years of application
- 5. Personal statement including:
 - a. Reasons for seeking this educational opportunity
 - b. Career goals and how this degree will aid in that process
 - Prior lifework experience that will contribute to your success in the program
 - d. Potential areas of interest for the capstone project
- Completed Graduate School application to D.N.A.P. program by July 1 of year graduating from M.S.N.A. program
- 6. Three professional references
- 7. Personal interview (by invitation)

8. M.S.N.A./D.N.A.P. students must pass the National Certification Examination to be eligible for graduation from the D.N.A.P. component of the M.S.N.A./D.N.A.P. program.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The mission of the Department of Nurse Anesthesia is to provide learners with the knowledge and skills necessary to work as part of an interprofessional team to serve the public through the delivery of safe, cost-efficient, quality anesthesia services and to develop leaders and scholars who will advance the specialty of nurse anesthesia through research, scholarship and public service. The department achieves this mission by establishing an environment that values excellence, stimulates creativity and recognizes achievement.

Student learning outcomes

In addition to the learning outcomes of the individual M.S.N.A. and D.N.A.P programs, graduates of the combined M.S.N.A./D.N.A.P. program will be able to:

- Apply physiological, safety and organizational theories to promote patient safety, enhance quality care and improve nurse anesthesia practice
- Analyze and synthesize relevant scientific literature and apply results to improve nurse anesthesia practice and patient care outcomes in a culturally sensitive manner
- Communicate effectively with patients, families, the public and other health professionals
- 4. Develop effective strategies for managing ethical dilemmas inherent in anesthesia patient care and the workplace
- Employ teaching and learning principles in educating and counseling individuals, families, students-in-training and groups
- Demonstrate leadership skills to meet the challenges of complex health care and educational environments
- Demonstrate scholarship through presentations, publications, leadership activities and collaboration with other disciplines
- 8. Utilize technology and information systems to analyze, manage and present

Refer to the program search function of the online VCU Bulletins to access a complete description of the individual M.S.N.A. and D.N.A.P. degree programs.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students in the combined program must complete a minimum of 97 credit hours (98 with elective).

Curriculum requirements		Semester total		ve)*
Courses	Credit hours	Spring semester I		
		MEDC 532 Medicinal Chemistry for Nurse Anesthetists	3	
ALHP 708 Ethics and Health Care	3	NRSA 603 Principles and Practice of Nurse Anesthesia III	3	
ALHP 760 Biostatistical Methods for Health Related Sciences	3	NRSA 621 Advanced Health Assessment for Nurse	1	
DNAP/NRSA 701 Human Factors and Patient Safety for Nurse Anesthetists	3	Anesthetists II NRSA 622 Clinical Practicum I	1	
DNAP 702 Nurse Anesthesia Patient Safety Seminar	3	NRSA 683 Research Methods in Nurse Anesthesia Practice	3	
DNAP 703 Health Services Delivery Systems for the Nurse Anesthetist	3	PHTX 516 Pharmacology for Nurse Anesthetists II	3	
DNAP 711 Policy and Practice for Nurse Anesthetists	3	Semester total		14
DNAP 712 Leadership in Nurse Anesthesia Education	3	Schester total		17
DNAP 789 Nurse Anesthesia Professional Practice	6	Summer semester I		
DNAP 799 Nurse Anesthesia Capstone Project	6	NRSA 602 Principles and Practice of Nurse Anesthesia II	3	
MEDC 532 Medicinal Chemistry for Nurse Anesthetists	3	NRSA 623 Clinical Practicum II	3	
NRSA 601 Principles and Practice of Nurse Anesthesia I	3	NRSA 633 Pathophysiology for Nurse Anesthetists	3	
NRSA 602 Principles and Practice of Nurse Anesthesia II	3	NRSA 642 Professional Aspects of Anesthesia Practice I	1	
NRSA 603 Principles and Practice of Nurse Anesthesia III	3	TVRS/T 0-2 Trotessional respects of reflectional reducer	1	
NRSA 604 Principles and Practice of Nurse Anesthesia IV	2	Semester total		10
NRSA 605 Principles and Practice of Nurse Anesthesia V	2	Schiester total		10
NRSA 611 Advanced Physiological Concepts for the Nurse Anesthetist (elective)	1*	Fall semester II		
NRSA 620 Advanced Health Assessment for Nurse	1	ALHP 708 Ethics and Health Care	3	
Anesthetists I	•	NRSA 604 Principles and Practice of Nurse Anesthesia IV	2	
NRSA 621 Advanced Health Assessment for Nurse Anesthetists II	1	NRSA 624 Clinical Practicum III NRSA 645 Professional Aspects of Anesthesia Practice II	6 1	
NRSA 622 Clinical Practicum I	1			
NRSA 623 Clinical Practicum II	3	Semester total		12
NRSA 624 Clinical Practicum III	6			
NRSA 625 Clinical Practicum IIII	6	Spring semester II		
NRSA 626 Clinical Practicum V	6	DNAP 703 Health Services Delivery Systems for the Nurse	3	
NRSA 633 Pathophysiology for Nurse Anesthetists	3	Anesthetist		
NRSA 642 Professional Aspects of Anesthesia Practice I	1	NRSA 605 Principles and Practice of Nurse Anesthesia V	2	
NRSA 645 Professional Aspects of Anesthesia Practice II	1	NRSA 625 Clinical Practicum IIII	6	
NRSA 647 Professional Aspects of Anesthesia Practice III	1	NRSA 647 Professional Aspects of Anesthesia Practice III	1	
NRSA 683 Research Methods in Nurse Anesthesia Practice	3			
NRSA 684 Evidence-based Decision Making in Nurse Anesthesia	3	Semester total		12
NRSZ 601 Laboratory in Principles and Practice of Nurse Anesthesia I	1	Summer semester II DNAP 712 Leadership in Nurse Anesthesia Education	3	
PHIS 501 Advanced Mammalian Physiology	5	NRSA 626 Clinical Practicum V	6	
PHTX 515 Pharmacology for Nurse Anesthetists I	3	NRSA 684 Evidence-based Decision Making in Nurse	3	
PHTX 516 Pharmacology for Nurse Anesthetists II	3	Anesthesia		
Total graduate credit hours required (minimum)	97 (98 with elective)*	Semester total		12
Sample plan of study		Fall semester III		
	Cuadit haves	ALHP 760 Biostatistical Methods for Health Related Sciences DNAP/NRSA 701 Human Factors and Patient Safety for Nurse		
Courses	Credit hours	Anesthetists DNAP 789 Nurse Anesthesia Professional Practice	6	
Fall semester I				
NRSA 601 Principles and Practice of Nurse Anesthesia I	3	Semester total		12
NRSA 611 Advanced Physiological Concepts for the Nurse Anesthetist (elective)	1*	M.S.N.A. awarded		
NRSA 620 Advanced Health Assessment for Nurse Anesthetists I	1	Spring semester III		
NRSZ 601 Laboratory in Principles and Practice of Nurse Anesthesia I	1	DNAP 702 Nurse Anesthesia Patient Safety Seminar	3	
PHIS 501 Advanced Mammalian Physiology	5	DNAP 711 Policy and Practice for Nurse Anesthetists	3	
PHTX 515 Pharmacology for Nurse Anesthetists I	3	DNAP 799 Nurse Anesthesia Capstone Project	6	
		Semester total		12

D.N.A.P. awarded

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Upon enrollment, student handbooks are made available to admitted students through a secure link on the department website.

Nurse Anesthesia, Master of Science in (M.S.N.A.)

Program accreditation

Council on Accreditation of Nurse Anesthesia Educational Programs

Graduate program director

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Additional contact

Suzanne M. Wright, Ph.D., C.R.N.A.
Associate professor and assistant program director smwright@vcu.edu
(804) 828-9808

Program website: sahp.vcu.edu/nrsa

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Related Sciences, Doctor of Philosophy (Ph.D.), Doctor of Nurse Anesthesia Practice (D.N.A.P.) to health related sciences sequential degree concentration

Nurse Anesthesia Practice, Doctor of (D.N.A.P.)

Nurse Anesthesia Practice, Doctor of (D.N.A.P.)/Nurse Anesthesia, Master of Science in (M.S.N.A.) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Oct. 1 for fall entry.

Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.S.N.A.	entry:		Graduate Record
	Fall only	Oct 1	Examination within
	•		five years of
			application

In addition to the general admission requirements of the VCU Graduate School,

Review of applications is ongoing. Preference is given to applications received prior to

1. Baccalaureate degree in nursing or related science

applicants must meet the following requirements:

- Current licensure as a registered professional nurse in Virginia (by completion of the first semester)
- 3. Cumulative minimum undergraduate grade point average of 3.0 on a 4.0 scale (preferred)
- Upper-division undergraduate organic chemistry course or a Web-based medicinal chemistry prep course offered through VCU's Department of Chemistry [Contact (804) 828-9808 to register.]
- A minimum of one year's experience in an area of acute/critical care nursing (recent)
- 6. Personal interview with members of the admissions committee (by invitation)
- Three professional references (One must be from the immediate supervisor who is responsible for applicant's performance evaluations with contact phone number attached.)

Contact the department (804) 828-9808 for specific admission requirements

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The mission of the Department of Nurse Anesthesia is to provide learners with the knowledge and skills necessary to work as part of an interprofessional team to serve the public through the delivery of safe, cost-efficient, quality anesthesia services and to develop leaders and scholars who will advance the specialty of nurse anesthesia through research, scholarship and public service. The department achieves this mission by establishing an environment that values excellence, stimulates creativity and recognizes achievement.

Student learning outcomes

The overall objective of the Master of Science in Nurse Anesthesia degree program is to prepare graduates who have acquired knowledge, skills and competencies in patient safety, perianesthetic management, critical thinking and

communication to fulfill their professional responsibility as certified nurse anesthetists.

Upon completion of the program, the graduate will:

- 1. Plan, organize, deliver and evaluate safe anesthesia care
- 2. Design, implement and evaluate perianesthetic care
- 3. Incorporate critical thinking into ongoing professional practice
- 4. Evaluate the postoperative course of a patient
- Assimilate into practice effective and culturally competent written, verbal and nonverbal communication with patients and families, other individuals involved in patient care, and the public
- 6. Assume responsibility for professional behavior

Degree requirements

In addition to general VCU Graduate School graduation requirements, candidates for the M.S.N.A. degree must be recommended by the faculty and:

- 1. Complete all requirements for the prescribed curriculum
- 2. Earn a minimum GPA of 3.0 in all NRSA courses
- 3. Earn a minimum cumulative GPA of 3.0 in all work presented for graduation
- Meet all clinical requirements as specified by the National Board on Certification and Recertification of Nurse Anesthetists
- Successfully complete the Self Evaluation Examination offered by the National Board of Certification and Recertification for Nurse Anesthetists and a two-part (didactic/research) written comprehensive examination

Credit

Curriculum requirements

Courses	hours	
MEDC 532 Medicinal Chemistry for Nurse Anesthetists	3	
NRSA 601 Principles and Practice of Nurse Anesthesia I	3	
NRSA 602 Principles and Practice of Nurse Anesthesia II	3	
NRSA 603 Principles and Practice of Nurse Anesthesia III	3	
NRSA 604 Principles and Practice of Nurse Anesthesia IV	2	
NRSA 605 Principles and Practice of Nurse Anesthesia V	2	
NRSA 620 Advanced Health Assessment for Nurse Anesthetists I	1	
NRSA 621 Advanced Health Assessment for Nurse Anesthetists II	1	
NRSA 622 Clinical Practicum I	1	
NRSA 623 Clinical Practicum II	3	
NRSA 624 Clinical Practicum III	6	
NRSA 625 Clinical Practicum IV	6	
NRSA 626 Clinical Practicum V	6	
NRSA 627 Clinical Practicum VI	6	
NRSA 633 Pathophysiology for Nurse Anesthetists	3	
NRSA 642 Professional Aspects of Anesthesia Practice I	1	
NRSA 645 Professional Aspects of Anesthesia Practice II	1	
NRSA 647 Professional Aspects of Anesthesia Practice III	1	
NRSA 683 Research Methods in Nurse Anesthesia Practice	3	
NRSA 684 Evidence-based Decision Making in Nurse Anesthesia	3	
NRSA/DNAP 701 Human Factors and Patient Safety for Nurse Anesthetists	3	
NRSZ 601 Laboratory in Principles and Practice of Nurse Anesthesia I	1	
PHIS 501 Mammalian Physiology	5	
PHTX 515 Pharmacology for Nurse Anesthetists I	3	
PHTX 516 Pharmacology for Nurse Anesthetists II	3	
Total graduate credit hours required (minimum)	73	

Sample plan of study

Courses		Credit hours
Fall semester I		
NRSA 601 Principles and Practice of Nurse Anesthesia I	3	
NRSA 620 Advanced Health Assessment for Nurse Anesthetists I	1	
NRSZ 601 Laboratory in Principles and Practice of Nurse Anesthesia I	1	
PHIS 501 Mammalian Physiology	5	
PHTX 515 Pharmacology for Nurse Anesthetists I	3	
Semester total		13
Spring semester I		
MEDC 532 Medicinal Chemistry for Nurse Anesthetists	3	
NRSA 603 Principles and Practice of Nurse Anesthesia III	3	
NRSA 621 Advanced Health Assessment for Nurse Anesthetists II	1	
NRSA 622 Clinical Practicum I	1	
NRSA 683 Research Methods in Nurse Anesthesia Practice	3	
PHTX 516 Pharmacology for Nurse Anesthetists II	3	
Semester total		14
Summer semester I		
NRSA 602 Principles and Practice of Nurse Anesthesia II	3	
NRSA 623 Clinical Practicum II	3	
NRSA 633 Pathophysiology for Nurse Anesthetists	3	
NRSA 642 Professional Aspects of Anesthesia Practice I	1	
Semester total		10
Fall semester II		
NRSA 604 Principles and Practice of Nurse Anesthesia IV	2	
NRSA 624 Clinical Practicum III	6	
NRSA 645 Professional Aspects of Nurse Anesthesia Practice II	1	
Semester total		9
Spring semester II		
NRSA 605 Principles and Practice of Nurse Anesthesia V	2	
NRSA 625 Clinical Practicum IV	6	
NRSA 647 Professional Aspects of Anesthesia Practice III	1	
Semester total		9
Summer semester II		
NRSA 626 Clinical Practicum V	6	
NRSA 684 Evidence-based Decision Making in Nurse Anesthesia	3	
Semester total		9
Fall semester III		
NRSA 627 Clinical Practicum VI	6	
NRSA 701 Human Factors and Patient Safety for Nurse Anesthetists	3	
Semester total		9
Total graduate credit hours required (minimum)		73

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing

master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Upon enrollment, student handbooks are made available to admitted students through a secure link on the department website.

Department of Occupational Therapy

The program in occupational therapy was initiated at Richmond Professional Institute in 1942. In 1965, the graduate program leading to a Master of Science degree in basic professional education in occupational therapy was initiated. The School of Occupational Therapy became a department in the School of Allied Health Professions in 1970.

Administration

Albert E. Copolillo
Associate Professor and Department Chair

Philosophy

The philosophy of the Department of Occupational Therapy embraces the philosophical base of occupational therapy stated by the American Occupational Therapy Association (1979):

Man is an active being whose development is influenced by the use of purposeful activity. Human beings are able to influence their physical and mental health and their social and physical environment through purposeful activity. Human life is a process of continuous adaptation. Adaptation is a change in function that promotes survival and self-actualization. Biological, psychological and environmental factors may interrupt the adaptation process at any time throughout the life cycle, causing dysfunction. Purposeful activity facilitates the adaptive process. Purposeful activity (occupation), including its interpersonal and environmental components, may be used to prevent and mediate dysfunction and to elicit maximum function. Activity as used by occupational therapists includes both an intrinsic and a therapeutic purpose. (AOTA. [1979]. The philosophical base of occupational therapy. AJOT, 33, 785.)

Mission

The primary mission of the Department of Occupational Therapy is the preparation of excellent, innovative, adaptable and responsible occupational therapists as professional leaders for the state and the nation.

In pursuit of this mission, the department:

- Fosters student commitment to scientific inquiry and professional competence, and promotes personal growth, balance and dedication to lifelong learning.
- Promotes faculty excellence and collaboration in teaching, scholarship and research that models integrity and competence.
- Collaborates with the community through education, consultation and the development of strong linkages with clinical educators and the community.
- Interacts dynamically with the occupational therapy profession and stakeholders, contributing proactively to the evolution of the profession.

Facilities

The educational facilities of the Department of Occupational Therapy are located in the Theater Row building at 730 E. Broad St. During the professional master's degree program, fieldwork assignments are made for students in a wide range of clinics and agencies in the Richmond metropolitan area. A 24-week extended fieldwork requirement will be arranged in approved clinical education facilities throughout the United States.

Programs

Three courses of study are offered:

- A Master of Science in Occupational Therapy, a professional entry-level degree program, is designed for students who wish to become occupational therapists.
- A post-professional Master of Science is available for registered occupational therapists.
- A post-professional Occupational Therapy Doctorate also is available for registered occupational therapists.

Academic regulations

Students are admitted to the occupational therapy programs with the expectation that they will direct maximum time and effort to the learning process. Outside activities must be scheduled by students for such dates and hours as permit full compliance with the time requirements for course work. Tardiness, lack of regular attendance or failure to meet deadlines for course assignments will not be excused because of employment or other outside activities.

To continue in the graduate curriculum, students are expected to maintain a cumulative GPA of 3.0 based on course work following matriculation.

- Graduate students who fail to maintain a 3.0 cumulative GPA or receive a
 grade of "D" (regardless of the cumulative GPA) will automatically be placed
 on probation and will be notified of probationary status.
- Conditions of probation: students must earn a quality point average during the semester of probation sufficient to result in a cumulative GPA of 3.0 in order to be removed from probationary status.

Students who are on probation due to receiving a "D" grade must retake that course, achieving a grade of "C" or better while also meeting all other academic standards.

Conditions of probation also may include recommendations for academic counseling, assignments by individual instructors and other requirements identified by the Committee on Academic Standing and Student Progress. Conditions of probation will be detailed in a letter of notification of probation prepared by this committee.

Only one semester of academic probation is permitted in the program. If probationary students fail to meet academic standards (GPA of 3.0) in a second semester or do not successfully complete deficient courses, they will be considered for dismissal.

As courses usually are offered only once a year and because early courses serve as prerequisites for later courses, students retaking a course or taking a

reduced course load will have to continue under an adjusted curriculum plan. This will result in extending the student's time in the program.

- Students who receive an "F" grade in any required course will be considered for dismissal by the committee.
- University standards require that a graduate student must not have more than
 six semester hours or 20 percent of semester hours attempted, whichever is
 greater, with a grade of "C." Students who receive a grade of "C" on more
 than the allowable number of semester hours will be reviewed for possible
 academic termination by the Committee on Academic Standing and Student
 Progress. Students who are not terminated for this criterion will be placed on
 automatic probation.
- If a student withdraws or is terminated by the clinical faculty before the completion of the Level II Fieldwork course, the student will receive an "U" grade for the course.

If the student withdraws, is terminated or fails a fieldwork experience, the course may be repeated only upon approval by the Committee on Academic Standing and Student Progress in consultation with the department chair and the fieldwork coordinator. Students may be dismissed from the program or be allowed to continue contingent upon fulfilling remedial activities based on a plan prepared by the fieldwork coordinator and ratified by the committee. No more than one additional fieldwork experience will be rescheduled. The opportunity to reregister and repeat the fieldwork course is contingent upon the fieldwork coordinator's ability to locate another facility willing to offer a fieldwork experience to the student and upon the support of the committee. Level II Fieldwork must be completed no later than 24 months subsequent to the completion of the academic phase.

- To continue in good standing, students also are expected to:
 - · Pay all fees.
 - Maintain personal attributes and ethical behaviors consistent with professional practice as defined in the Occupational Therapy Department Student Handbook.
 - Complete fieldwork requirements to the satisfaction of clinical and academic faculty.
- Although arrangements are made in advance, each student is reviewed prior
 to placement in the Level II Fieldwork education. Students must have
 satisfactorily completed courses prerequisite to that fieldwork experience and
 be recommended by the faculty. They must demonstrate professional
 behavior as specified in the ethical behaviors listed in the Occupational
 Therapy Department Student Handbook. Medical problems may delay or
 prevent fieldwork placement.

Occupational therapy courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to occupational therapy (OCCT) courses.

Occupational Therapy, Master of Science in (M.S.O.T.)

Program accreditation

Accreditation Council for Occupational Therapy Education of the American Occupational Therapy Association

Graduate program director

Dianne F. Simons, Ph.D., OTR/L

Assistant professor, program director and graduate admissions chair dfsimons@vcu.edu (804) 828-2219

Additional contacts

Lawrencine Smith Program manager Ismith@vcu.edu (804) 828-2219

Al Copolillo, Ph.D., OTR/L, FAOTA

Associate professor and chair, Department of Occupational Therapy

aecopoli@vcu.edu

(804) 828-2219

Program website: sahp.vcu.edu/occu/programs/entry

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Occupational Therapy, Post-professional Doctorate (O.T.D.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Occupational Therapy, Master of Science in (M.S.O.T.)			
Degree: M.S.O.T	Semester(s) of entry:	Deadline dates:	Test requirements: Graduate Record
	Summer	Dec 1 (OTCAS and VCU graduate applications)	Exam

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following requirements:

- 1. A bachelor's degree from an accredited college or university
- A minimum grade-point average in all college courses of 2.7 (based on a 4.0 system)
- 3. A minimum grade-point average in prerequisite courses of 3.0. (without rounding)
- A one-page, "value-added" essay submitted as a PDF file to otentrylevel@vcu.edu
- 5. An official report of GRE scores to VCU (Institution Code 5570)
- An Occupational Therapy Centralized Application Service application including these items:
 - a. A personal statement that addresses:
 - i. Why applicant is selecting OT as a career
 - ii. How a master's degree in OT relates to immediate and long-term professional goals
 - iii. How the applicant's personal, educational and professional background will help achieve these goals
 - Evidence of completion of a minimum of 30 observation hours in one or more settings under the supervision of a licensed OTR or COTA
 - e. Three letters of recommendation (One letter from an occupational therapist is preferred, but it is not essential.)
 - f. Ten prerequisite courses (30-32 semester credit hours)
- For non-native English-speaking applicants, regardless of immigration status, a Test of English as a Foreign Language iBT score of greater than 102, a TOEFL CBT score of greater than 253, a TOEFL PBT score of greater than 610 or an International English Language Testing System score of greater than 6.5

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It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The primary mission of the Department of Occupational Therapy is the preparation of excellent, innovative, adaptable and responsible occupational therapists as professional leaders for the state, the nation and the world. Our mission represents an integration of the missions of the university and the School of Allied Health Professions. In pursuit of this mission, the department:

- Prepares students to become client-centered practitioners who utilize up-todate evidence, theory and technology to facilitate their clients' health and well-being through the use of occupation
- Seeds the development of new occupational therapy leaders in research, teaching and service through educational, community and research expectations and opportunities
- Fosters student commitment to scientific inquiry and professional competence and promotes personal growth, balance and dedication to lifelong learning and service
- Promotes faculty excellence, collaboration and leadership in teaching, scholarship, research and service that models integrity, competence and evidence-based practice
- Collaborates with the community through education, consultation and the development of strong linkages with practitioners, clinical educators and the community
- Interacts dynamically with the OT profession and stakeholders, contributing
 proactively to the evolution and recognition of the profession and the use of
 occupation to meet society's needs for health and quality life

Student learning outcomes

- Meet foundational requirements: As part of a broad foundation in liberal
 arts and sciences, including biological, physical, social and behavioral
 sciences, students will be able to employ logical thinking, critical analysis,
 clinical reasoning and problem solving to demonstrate oral and written
 communication skills, innovative use of computer technology, knowledge of
 human structure and function, awareness of social development and use of
 statistics to interpret tests and measurements. (Objectives B.1.1-B.1.11 in
 ACOTE Standards)
- 2. Basic tenets of occupational therapy: Students will be able to understand and articulate the meaning and impact of occupation, its historical and philosophical significance to the profession, its role as a central construct in OT theory development, its relationship to the promotion of health and wellness and prevention of disease and disability. Recognizing the importance of activity analysis in the process of formulating intervention plans will be an emphasis for student learning. (Objectives B.2.1-B.2.11 in ACOTE Standards)
- 3. OT theories, models and frames of reference: Students will be able to describe and apply occupational therapy theories and models to these and other theoretical foundations of evaluation and intervention and will demonstrate appreciation for the process of development of theoretical principles. Occupational therapy theories and models covered in the curriculum will include but not be limited to: the model of human occupation sensory integration, biomechanical and rehabilitation models, motor control and movement recovery models. (Objectives B.3.1-B.3.6 in ACOTE Standards)
- 4. OT screening, evaluation and referral: Students will be able to select appropriate tools, both standardized and nonstandardized, for effective evaluation; analyze psychometric properties of assessment tools; evaluate occupational performance across all areas of occupation; distinguish between roles of occupational therapists and occupational therapy assistants; make appropriate client referrals; interpret test results; and document services to assure accountability, reimbursement and need for services. (Objectives B.4.1-B.4.11 in ACOTE Standards)
- Intervention planning: In accordance with the occupational therapy practice framework, students will learn to develop occupation-based intervention plans and strategies. Intervention planning will be based on information

- acquired via occupational profiles, evaluation of client factors body function and structure strengths/weaknesses, performance patterns, contextual issues, activity demands, and performance skills. Students will be able to choose appropriate therapeutic activities, learn the value of therapeutic use of self, modify environments, incorporate assistive technologies, fabricate needed orthotics, and train clients in areas of mobility and transfer, feeding and eating, and activities of daily living. Students will educate clients as needed and safely use superficial thermal and mechanical modalities as preparatory measures to improving occupational performance. (Objectives B.5.1-B.5.28 in ACOTE Standards)
- 6. Context of service delivery: Students will demonstrate knowledge of the variety of contexts that affect and are affected by occupational therapy service delivery. They will be able to compare and contrast differences in service delivery systems, including health care, education, community and social systems. They will be able to discuss the impact of socioeconomic and political influences on occupational therapy and the need to respond to system changes to create opportunities and avoid pitfalls in education, research and practice. (Objectives B.6.1-B.6.6 in ACOTE Standards)
- 7. OT management: Students will be able to describe and demonstrate how practice settings affect service delivery and management of services; awareness of how federal and state laws guide service delivery; understanding of the requirements for licensing and certification, documentation, and reimbursement; and the essential nature of competency-based procedures for legal and ethical supervision of personnel and fieldwork students. Understanding of program needs, service delivery, optional and effective staffing procedures will be discussed. (Objectives B.7.1-B.7.10 in ACOTE Standards)
- 8. Understanding and consuming research: Students will be able to articulate the importance of knowledge development for the profession; locate, critique and interpret research evidence; apply research literature to practice; use basic statistics and qualitative research methods; demonstrate knowledge of the research process; and implement some aspect of research methodology. Discussion of grant writing, proposal development, research dissemination, and translation and research report writing will be included. (Objectives B.8.1-B.8.9 in ACOTE Standards)
- 9. Professional ethics: Students will be able to demonstrate knowledge and understanding of the American OT Association's code of ethics; the importance of membership in professional organizations; the value of supporting and educating other professions about OT; the importance of ongoing professional development; the threat and avoidance of liability issues; conflict resolution; contractual service provision; and ethical supervision. (Objectives B.9.1-B.9.13 in ACOTE Standards)
- 10. **Fieldwork:** Through a carefully coordinated process of fieldwork, students will be able to apply concepts learned in the classroom to practice settings under careful supervision of trained and qualified occupational therapy practitioners. Gradation of time spent, responsibilities and expectations placed on students will be provided through assignment, first to fieldwork level 1 and then to fieldwork level 2 experiences across a wide range of settings and practice areas. Upon completion of all fieldwork requirements, students will be prepared to take the National Board for Certification in Occupational Therapy examination, thereby qualifying them for state licensure and practice of occupational therapy at the entry level. (Objectives B.10.1-B.1.22 in ACOTE Standards)

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must complete all School of Allied Health Professions requirements and successfully complete 82 credit hours consisting of 60 credit hours in course work and 22 in fieldwork.

Curriculum requirements

Courses	Credit hours
ANAT 525 Advanced Functional Anatomy (Occupational Therapy)	5
OCCT 520 Occupational Therapy Applications: Kinesiology	2
OCCT 521 Neuroscience Applications to Occupational Therapy	3
OCCT 522 Interdisciplinary Medical Lectures	3

OCCT 530 Nature of Occupational Therapy	2
OCCT 531 Interpersonal Communication and Group Dynamics	2
OCCT 532 Lifespan Occupational Development	3
OCCT 533 Occupational Therapy Principles, Values and Theories	4
OCCT 534 Occupational Therapy Evaluation and Intervention Overview	3
OCCT 620 Occupational Therapy Practice Activities I: Activity	1
Analysis	
OCCT 621 Occupational Therapy Practice Activities II: Assistive Technologies	1
OCCT 623 Occupational Therapy Practice Activities III: Activity and Occupational Synthesis	1
OCCT 630 Adult Evaluation and Intervention I: Foundations	2
OCCT 633 Adult Evaluation and Intervention II: Facilitating Function With Disability Across the Continuum of Care	4
OCCT 635 Psychosocial Evaluation and Intervention I: Foundations	2
OCCT 640 Pediatric Evaluation and Intervention I: Infant and Preschool Children	3
OCCT 641 Pediatric Evaluation and Intervention II: Ages 6 to 12	4
OCCT 650 Occupational Therapy in Health Care	3
OCCT 651 Administration and Supervision of Occupational Therapy	3
Services	
OCCT 670 Case-based Clinical Reasoning in Occupational Therapy	2
OCCT 709 Research Process and Statistical Analysis in Occupational	4
Therapy	
OCCT 729 Research Practicum	3
Fieldwork requirement	
OCCT 636 Fieldwork I in Psychosocial Occupational Therapy	2
OCCT 660 Level I Fieldwork in Occupational Therapy (sections 001 and 002)	2
OCCT 680 Level II Fieldwork in Occupational Therapy: A	9
OCCT 681 Level II Fieldwork in Occupational Therapy: B	9
Total graduate credit hours required (minimum)	82

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student manual distributed to new students every June during orientation.

All graduates of an occupational therapy program are required to take the national certification examination to become a registered occupational therapist and use the credentials OTR. The national certifying organization for occupational therapy is the National Board for Certification in Occupational Therapy. Other licensure or certification requirements have been established by all 50 states, the District of Columbia, Guam and Puerto Rico. Most licensure requirements include board certification as a registered occupational therapist. Some licensure or certification agencies consider individuals convicted of a felony ineligible for licensure or certification. For specific information, prospective students should contact the licensure or certification agency for occupational therapy.

Occupational Therapy, Master of Science in (M.S.O.T.)/ Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Graduate program director

E. Ayn Welleford, Ph.D.

Chair, Department of Gerontology

ewellefo@vcu.edu

(804) 828-1565

Program website: sahp.vcu.edu/gerontology

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Aging Studies, Certificate in (Post-baccalaureate graduate certificate) Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Rehabilitation Counseling, Master of Science in (M.S.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Apply online at graduate.admissions.vcu.edu.

The Department of Gerontology, in cooperation with other programs at the university, provides students interested in working with elders or in gerontological settings with the opportunity to complete the Certificate in Aging Studies while also completing requirements for other degree programs. Students must apply separately to the participating programs and must meet all admission and degree requirements for both programs. In some cases, and with the approval of the advisers of both programs, course work in one program may be approved to satisfy a course requirement in another program.

The departments of Occupational Therapy and Gerontology have developed a specialized version of the Certificate in Aging Studies program for students completing the Master of Science in Occupational Therapy (M.S.O.T.). Students must meet admission requirements for the occupational therapy degree and the aging studies certificate programs. The student is required to complete the following courses:

Curriculum requirements

Courses	Credit hours
GRTY 601 Biological and Physiological Aging	3
GRTY/PSYC 602 Psychology of Aging	3
GRTY 603 Social Gerontology	3
GRTY 606 Aging and Human Values or GRTY 616 Geriatric	3
Rehabilitation or	
GRTY 691 Topical Seminar	3
OCCT 691 Special Topics in Occupational Therapy	2
OCCT 709 Research Process and Statistical Analysis in	4
Occupational Therapy	
OCCT 729 Research Practicum	3

Total graduate credit hours required (minimum)

Contact the respective departments for additional curriculum information.

Occupational Therapy, Post-professional Doctorate (O.T.D.)

Graduate program director

Shelly J. Lane, Ph.D., OTR/L, FAOTA Professor and director, post-professional education sjlane@vcu.edu (804) 828-2219

Additional contact

Lawrencine Smith Program manager lsmith@vcu.edu

(804) 828-2219

Al Copolillo, Ph.D., OTR/L, FAOTA

 $Associate\ professor\ and\ chair,\ Department\ of\ Occupational\ Therapy\ aecopoli@vcu.edu$

(804) 828-2219

Program website: sahp.vcu.edu/occu/programs/doctorate

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Occupational Therapy, Master of Science in (M.S.O.T.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Occupational 7	Therapy, Post-profession	al Doctorate (O.T.D.)	
Degree: O.T.D.	Semester(s) of entry:	Deadline dates:	Test requirements: Graduate Record
	Fall	May 1	Exam (if applying with a bachelor's degree in occupational therapy)

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following minimum acceptable standards for admission:

- Bachelor's or master's degree in occupational therapy from an accredited college or university
- 2. Cumulative minimum GPA of 3.0 from prior course work
- 3. Current (within 5 years) GRE scores if applying with a bachelor's degree (The GRE is not required if applying with a master's degree.)
- Official transcripts in sealed envelopes and signed by university official across seal
- 5. A leadership essay describing how earning an O.T.D. and completing a capstone leadership project will enhance personal career goals and how the applicant may use advanced leadership skills developed in this program to advance the profession of occupational therapy
- 6. Curriculum vitae or resume that details professional leadership experience
- 7. Three letters of recommendation

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the

University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

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The primary mission of the Department of Occupational Therapy is the preparation of excellent, innovative, adaptable and responsible occupational therapists as professional leaders for the state, the nation and the world. Our mission represents an integration of the missions of the university and the School of Allied Health Professions. In pursuit of this mission, the department:

- Prepares students to become client-centered practitioners who utilize up-todate evidence, theory and technology to facilitate their clients' health and well-being through the use of occupation
- Seeds the development of new occupational therapy leaders in research, teaching and service through educational, community and research expectations and opportunities
- Fosters student commitment to scientific inquiry and professional competence and promotes personal growth, balance and dedication to lifelong learning and service
- Promotes faculty excellence, collaboration and leadership in teaching, scholarship, research and service that models integrity, competence and evidence-based practice
- Collaborates with the community through education, consultation and the development of strong linkages with practitioners, clinical educators and the community
- Interacts dynamically with the OT profession and stakeholders, contributing
 proactively to the evolution and recognition of the profession and the use of
 occupation to meet society's needs for health and quality life

Student learning outcomes

- The student will articulate knowledge of leadership theories and models, critically analyze current leadership abilities and apply leadership skill in professional contexts.
- The student will identify and use professional, data-driven evidence to support professional programs and initiatives through proposal writing for grant funding and program development.
- The student will demonstrate advanced skill in developing and implementing new programs/projects designed to advance the field of occupational therapy.

Degree requirements

The Occupational Therapy Doctorate is a part-time, distance education, post-professional program for students with an occupational therapy degree. It combines Web-based instruction with on-campus meetings twice a year, in August and January. The program follows the traditional fall and spring semester schedule. Summer courses are required for students entering with a bachelor's degree and are optional for students entering with a master's degree. The curriculum consists of leadership, research/scientific foundation and theory practice foundation core courses, along with electives for concentrated study.

In addition to general VCU Graduate School graduation requirements, students must complete all university and School of Allied Health Professions requirements. Students must successfully complete all credit hours appropriate to the curriculum into which students enter. The curriculum for an occupational therapist entering with a master's degree from VCU requires a minimum of 21 credit hours. The curriculum for an occupational therapist entering with a master's degree from another university or college requires a minimum of 32 credit hours. The curriculum for an occupational therapist entering with a baccalaureate degree requires a minimum of 47 credit hours of courses.

Curriculum requirements

Students entering with an M.S. from VCU

Courses	Credit hours
Research and scientific foundations core	3
OCCT 735 Evidence Bases for Occupational Therapy Practice	3
Leadership core	18
OCCT 736 Developing Fundable Projects	3
OCCT 739 Program Development and Evaluation	3
OCCT 740 Concepts in Disability Leadership for Occupational Therapists	3
OCCT 741 Disability Leadership Applications for Occupational Therapists	3
OCCT 742 Practicum in Leadership for Occupational Therapists	4
OCCT 743 Synthesis and Evaluation of Capstone Leadership Project	2
Total graduate credit hours required (minimum)	21

Students entering with an M.S. from another university/college

Courses	Credit hours
OCCT 671 Advanced Theory in Occupational Therapy	4
OCCT 673 Health Care Delivery and Occupational Therapy Practice Models	3
OCCT 710 Quantitative Research Processes	4
OCCT 735 Evidence Bases for Occupational Therapy Practice	3
OCCT 736 Developing Fundable Projects	3
OCCT 739 Program Development and Evaluation	3
OCCT 740 Concepts in Disability Leadership for Occupational Therapists	3
OCCT 741 Disability Leadership Applications for Occupational Therapists	3
OCCT 742 Practicum in Leadership for Occupational Therapists	4
OCCT 743 Synthesis and Evaluation of Capstone Leadership Project	2
Total graduate credit hours required (minimum)	32

Students entering with an B.S.

Courses	Credit hours
OCCT 671 Advanced Theory in Occupational Therapy	4
OCCT 673 Health Care Delivery and Occupational Therapy Practice Models	3
OCCT 685 Advanced Clinical Reasoning: Asking the Right Questions	3
OCCT 686 Advanced Clinical Reasoning Applications	3
OCCT 710 Quantitative Research Processes	4
OCCT 735 Evidence Bases for Occupational Therapy Practice	3
OCCT 736 Developing Fundable Projects	3
OCCT 739 Program Development and Evaluation	3
OCCT 740 Concepts in Disability Leadership for Occupational Therapists	3
OCCT 741 Disability Leadership Applications for Occupational Therapists	3
OCCT 742 Practicum in Leadership for Occupational Therapists	4

OCCT 743 Synthesis and Evaluation of Capstone Leadership Project	2
Electives Electives must be at the graduate level, consistent with the student's overall leadership direction and approved by the director of post-professional education. They may be taken at VCU or at another university or college. Some options at VCU include those listed below. Please check Online@VCU for additional opportunities.	9
GRTY 510 Aging	3
GRTY 604 Problems, Issues and Trends in Gerontology	4
GRTY 606 Aging and Human Values	3
OCCT 690 Occupational Therapy Seminar	3
OCCT 697 Independent Study	3
SEDP 532 Understanding Autism Spectrum Disorder	3
SEDP 634 Assessment, Curriculum and Teaching Methods for Autism Spectrum Disorder	3
SEDP 635 Supporting Behavior and Social Skills for Autism Spectrum Disorder	3
SEDP 638 Instructional Design and Field Experience for Autism Spectrum Disorder	3

Total graduate credit hours required (minimum) Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student manuals are distributed to new students every August at the on-campus meeting.

Department of Patient Counseling

Patient counseling is the practice of communicating emphatic concern, support and sensitive spiritual counsel to the physically or emotionally troubled person in the traumas of life. There is a long history of a concerted effort toward this end at the VCU Health System. With the appointment of Dr. George D. Ossman as

chaplain in 1943, the administration gave clear evidence of its awareness of the need for a specialized caring ministry to hospitalized patients and their families.

The chaplaincy program was significantly expanded in 1958 and was accredited to begin the education and clinical training of persons in patient counseling. Since then, a continuous program has been in existence and has evolved into the present program in patient counseling. Patient counseling, as it exists today, became an integrated program in the School of Allied Health Professions in 1970. A comprehensive curriculum review was completed in 1999.

With the rapid growth of health care and the increasingly complex problems of medical ethics and viable delivery systems, it is very important to educate qualified persons to deal with the human dimensions of illness as well as the personal and family stressors related to it. Through this program, VCU has an opportunity to make an impact upon health care education by emphasizing the spiritual dimension of human needs in life crises. By so doing, this university has a significant role to play in the important task of keeping health care holistic and utilizing technical and scientific methodology in the context of a deep respect for the total life of persons.

Accreditation

The program is accredited by the Association for Clinical Pastoral Education, Incorporated. It is offered in collaboration with the VCU Health System.

Administration

D. Mark Cooper

Associate Professor and Chair

Objectives

The Program in Patient Counseling is designed to assist an individual to work in the health field as one skilled in dealing with the whole person in the context of life's crises and in a cooperative interprofessional team approach. It is offered to persons who have an existing identity in a helping or counseling profession. This includes clergy, social workers, institutional counselors, education specialists, psychologists, community health workers and others in the health care professions.

Facilities

West Hospital (W2S) is the base for the educational program, and limited space is available in clinical areas to work with persons and families in crisis. The Main Hospital, mezzanine level, contains the chapel, family consultation room and administrative offices.

Code of ethics

The professional behavior of the student is expected to be in accordance with the Code of Professional Ethics, as adopted by the Association for Clinical Pastoral Education, Inc. and the Code of Ethics of the Association of Professional Chaplains.

Programs

Students serve in the dual capacity of providing pastoral care service while learning. Extensive clinical involvement, including night and weekend responsibilities, is required for selected courses and clinical pastoral education credit. Each student receives individual supervision by a member of the faculty.

- · Intern Certificate
- Postbaccalaureate Graduate Certificate in Patient Counseling
- · Master of Science in Patient Counseling

Students who are unsuccessful in demonstrating completion of designated clinical pastoral education outcomes in any program will be required to develop with a faculty mentor an individualized plan of study toward their completion. Typically, this plan will be accomplished through additional course work or a directed independent study.

Continuation requirements, advising, transfer and part-time status

A student must maintain a minimum GPA of 3.0 in all course work completed at VCU. A student who falls below that minimum will have one semester to remedy the deficiency.

A student must register for at least one credit hour each academic year for continuation in the program. Any student who fails to register must have prior approval to do so or be dropped from the program and must reapply for reinstatement.

There is a five calendar-year maximum for students to complete the Master of Science degree and a seven calendar-year maximum for the dual degree. The graduate certificate program must be completed within a four calendar-year maximum. Part-time students who wish to accumulate concurrent ACPE credit need to be sure that course work is completed in accordance with ACPE standards.

A maximum of eight credits may be transferred from another university toward the Master of Science course requirements provided these credits have not been applied to a previous degree. A maximum of one-third of the didactic hours may be transferred from another VCU program. Dual degree candidates may apply six credits from their seminary studies to the VCU degree. Transfer is given at the discretion of the chair after consultation with the faculty, subject to university approval. Credits are not transferable to either of the certificate programs.

Students who have been admitted to the graduate certificate program may be admitted to the master of science degree with advanced standing after the completion of at least 18 credits with a "B" or better. All credits of a "B" or better will transfer to the degree program.

Upon admission to all programs students will be assigned a faculty adviser.

Patient counseling courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to patient counseling (PATC) courses.

Patient Counseling, Certificate in (Post-baccalaureate graduate certificate)

Program accreditation

Association for Clinical Pastoral Education

Graduate program director

Angela H. Flack, M.Div.

Director of education, assistant professor and ACPE supervisor aflack@vcu.edu (804) 828-0540

Additional contact

Russell H. Davis, Ph.D.

Chair, associate professor and ACPE supervisor

rhdav is 2@vcu.edu

(804) 828-0540

Program website: sahp.vcu.edu/ptc

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Patient Counseling, Master of Science (M.S.), accelerated chaplain certification concentration

Patient Counseling, Master of Science (M.S.) with a concentration in chaplain certification

Patient Counseling, Master of Science (M.S.) with a concentration in supervisory clinical pastoral education

Patient Counseling, Master of Science (M.S.)/Divinity, Master of (M.Div.) from the Baptist Theological Seminary in Richmond or the Samuel DeWitt Proctor School of Theology at Virginia Union University [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Patient Counsel	ing, Certificate in (Post	-baccalaureate gradua	te certificate)
Degree: Certificate	Semester(s) of entry:	Deadline dates:	Test requirements: International students
	Fall	Jun 1	(TOEFL)
	Spring	Nov 1	
	Summer	Mar 1	

In addition to the general admission requirements of the VCU Graduate School, applicants must have successfully completed undergraduate training and hold a bachelor's degree or its equivalent from an accredited institution reflecting ability to perform at the graduate level. Students must apply and be accepted to VCU's Graduate School to participate in our Clinical Pastoral Education program. This program also requires the submission of a resume, the Association of Clinical Pastoral Education application materials and a personal interview with faculty. ACPE application fact sheets and narrative instructions can be found at http://s531162813.onlinehome.us/forms.

Applicants holding degrees from recognized foreign institutions should display an acceptable level of English proficiency by achieving a minimum score of 550 on the TOEFL paper-based examination or 100 on the Internet-based examination. Ability to communicate orally and in writing must be presented to the Department of Patient Counseling Admissions Committee.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

To provide clinical education for pastoral care professionals as well as other health care providers in the spiritual care of patients and families within an interdisciplinary context

Student learning outcomes

- Students will articulate the central themes of their religious heritage and the theological understanding that informs their ministry (ACPE Standard 311, Outcome 311.1).
- Students will identify and discuss major life events, relationships and cultural contexts that influence personal identity as expressed in pastoral functioning (ACPE Standard 311, Outcome 311.2).
- Students will initiate peer group and supervisory consultation and receive critique about one's ministry practice (ACPE Standard 311, Outcome 311.3).
- 4. Students will risk offering appropriate and timely critique (ACPE Standard 311, Outcome 311.4).
- Students will recognize relational dynamics within group contexts (ACPE Standard 311, Outcome 311.5).

- Students will demonstrate integration of conceptual understandings presented in the curriculum into pastoral practice (ACPE Standard 311, Outcome 311.6).
- 7. Students will initiate helping relationships within and across diverse populations (ACPE Standard 311, Outcome 311.7).
- Students will use the clinical methods of learning to achieve their educational goals (ACPE Standard 311, Outcome 311.8).
- Students will formulate clear and specific goals for continuing pastoral formation with reference to personal strengths and weaknesses (ACPE Standard 311, Outcome 311.9).

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must complete 12 credit hours of study according to one of the established curricula. Course substitutions require faculty approval.

Curriculum requirements

Courses	Credit hours
Core requirements	
PATC 515 Basic Patient Counseling	9
Electives	
PATC 500-level or higher elective	3
Total graduate credit hours required (minimum)	12

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Students receive a Department of Patient Counseling Student Handbook during orientation.

Patient Counseling, Master of Science (M.S.) with a concentration in chaplain certification

Program accreditation

Association for Clinical Pastoral Education

Graduate program director

Angela H. Flack, M.Div.

Director of education, assistant professor and ACPE supervisor aflack@vcu.edu

(804) 828-0540

Additional contact:

Russell H. Davis, Ph.D.

Associate professor, ACPE supervisor and chair, Department of Patient Counseling

rhdavis2@vcu.edu

(804) 828-0540

Program website: sahp.vcu.edu/ptc

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Patient Counseling, Certificate in (Post-baccalaureate graduate certificate)
Patient Counseling, Master of Science (M.S.), accelerated chaplain certification

Patient Counseling, Master of Science (M.S.) with a concentration in supervisory clinical pastoral education

Patient Counseling, Master of Science (M.S.)/Divinity, Master of (M.Div.) from the Baptist Theological Seminary in Richmond or the Samuel DeWitt Proctor School of Theology at Virginia Union University [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Patient Counscertification	eling, Master of Science (M.S.) with a concentra	ation in chaplain
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.S.	entry:		None
	Fall (preferred)	Jun 1	
	Spring	Nov 1	
	Summer	Mar 1	

In addition to the general admission requirements of the VCU Graduate School, applicants must have successfully completed undergraduate training and hold a bachelor's degree or its equivalent from an accredited institution reflecting ability to perform at the graduate level; graduate degree in a health-related field; or two years of graduate theological education. Students must apply and be accepted to VCU's Graduate School to participate in the clinical pastoral education program.

This program also requires submission of the following supplemental material: a current resume, the Association of Clinical Pastoral Education Inc. application materials, copies of all previous self- and supervisor's CPE evaluations and two verbatim case studies of clinical work. An interview with the faculty admission committee will be granted based on application material.

ACPE application fact sheets and narrative instructions can be found at http://s531162813.onlinehome.us/forms.

Chaplain certification concentration

- The chaplain certification concentration is available to individuals who have a previous graduate degree or who have at least two years of graduate education in theology, the behavioral sciences or the health-related sciences. It is assumed that completion of this 44-credit-hour concentration will take four to five semesters.
- Students admitted to this option must have a minimum GPA of 3.0. Submission of the Graduate Examination Record is required when this GPA requirement is not met.
- 3. Applicants holding degrees from recognized foreign institutions should display an acceptable level of English proficiency by achieving a minimum score of 550 on the TOEFL paper-based examination or 100 on the Internetbased examination. Ability to communicate orally and in writing must be presented to the Department of Patient Counseling admissions committee.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

To provide clinical education for pastoral care professionals as well as other health care providers in the spiritual care of patients and families within an interdisciplinary context

Student learning outcomes

- Graduates will demonstrate awareness of self with congruence in the care of patients, families and staff (ACPE Standard 312, Outcome 312.1).
- Graduates will demonstrate ability to provide care with sensitivity and respect in a diverse patient, family and staff environment (ACPE Standard 312, Outcome 312.2).
- Graduates will demonstrate the knowledge and provision of intensive and extensive pastoral/spiritual care to persons in crisis (ACPE Standard 312, Outcome 312.3)
- Graduates will demonstrate incorporation of theological understanding and knowledge of the behavioral sciences in care of patients, families and staff (ACPE Standard 312, Outcome 312.4).
- Graduates will demonstrate effective participation as a member of a comprehensive health care team (ACPE Standard 312, Outcome 312.5).
- 6. Graduates will demonstrate responsible care and professional boundaries (ACPE Standard 312, Outcome 312.6).
- Graduates will demonstrate the utilization of individual and group supervision for personal and professional development as well as ongoing evaluation of clinical practice (ACPE Standard 312, Outcome 312.7).
- 8. Graduates will demonstrate awareness of professional standards in chaplaincy (ACPE Standard 312, Outcome 312.8).
- 9. Graduates will demonstrate ability to self-supervise and critically reflect on their own pastoral encounters (ACPE Standard 312, Outcome 312.9).

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must:

- Complete a minimum of 44 credit hours in accordance with the approved curriculum
- 2. Complete all core courses
- 3. Complete all required elective course hours

Curriculum requirements

Courses

Credit hours

Core requirements	3
PATC 515 Basic Patient Counseling	9
PATC 611 Theory and Practice of Patient Counseling I	5
PATC 612 Theory and Practice of Patient Counseling II	5
PATC 613 Group Process I	2
PATC 614 Group Process II	2
PATC 615 Theory of Group Leadership	2
PATC 617 Supervised Clinical Practice I	5
PATC 635 Clinical Ethics	2
PATC 639 Pastoral Care Management	2
PATC 640 Research Basics for Hospital Chaplains	1
PATC 641 Evidence-based Inquiry for Hospital Chaplains	1
PATC 642 Developing and Presenting Chaplaincy Research	1

Courses may be taken in patient counseling, gerontology and rehabilitation counseling. Other electives may be allowed with prior permission of the program director and chair.

Electives

PATC elective course (500 level or higher)

GRTY elective course (620 and 630 series)

RHAB elective course (620 and 630 series)

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Students receive a Department of Patient Counseling student handbook during orientation.

Patient Counseling, Master of Science (M.S.) with a concentration in supervisory clinical pastoral education

Program accreditation

Association for Clinical Pastoral Education

Graduate program director

Angela H. Flack, M.Div.

Director of education, assistant professor and ACPE supervisor aflack@ycu.edu

(804) 828-0540

Additional contact:

Russell H. Davis, Ph.D.

Associate professor, ACPE supervisor and chair, Department of Patient Counseling

rhdavis2@vcu.edu

(804) 828-0540

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Program website: sahp.vcu.edu/ptc

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Patient Counseling, Certificate in (Post-baccalaureate graduate certificate)
Patient Counseling, Master of Science (M.S.), accelerated chaplain certification
concentration

Patient Counseling, Master of Science (M.S.) with a concentration in chaplain certification

Patient Counseling, Master of Science (M.S.)/Divinity, Master of (M.Div.) from the Baptist Theological Seminary in Richmond or the Samuel DeWitt Proctor School of Theology at Virginia Union University [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Patient Counseling, Master of Science (M.S.) with a concentration in supervisory clinical pastoral education			
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE
	Fall (preferred)	Jun 1	
	Spring Summer	Nov 1 Mar 1	International students required (TOEFL)

In addition to the general admission requirements of the VCU Graduate School, applicants must have successfully completed undergraduate training and hold a bachelor's degree or its equivalent from an accredited institution reflecting ability to perform at the graduate level; graduate degree in a health-related field; or two years of graduate theological education. Students must apply and be accepted to VCU's Graduate School to participate in the clinical pastoral education program.

This program also requires submission of the following supplemental material: a current resume, the Association of Clinical Pastoral Education Inc. application materials, a copy of all previous self- and supervisor's CPE evaluations and two verbatim case studies of clinical work. An interview with the faculty admission committee will be granted based on application material.

ACPE application fact sheets and narrative instructions can be found at http://s531162813.onlinehome.us/forms.

Supervisory clinical pastoral education concentration

- The supervisory clinical pastoral education concentration is offered to persons seeking certification as supervisors according to the Standards of the Association for Clinical Pastoral Education Inc.
- This degree concentration is available to students who hold a master's degree or equivalency and who have completed a minimum of four units of ACPE clinical pastoral education.
- Students admitted to this option must have a minimum GPA of 3.0. Submission of the Graduate Examination Record is required when this GPA requirement is not met.
- 4. Applicants holding degrees from recognized foreign institutions should display an acceptable level of English proficiency by achieving a minimum score of 550 on the TOEFL paper-based examination or 100 on the Internetbased examination. The ability to communicate orally and in writing must be presented to the Department of Patient Counseling admissions committee.
- Each full-time semester at VCU is designed to meet the requirements for one unit of supervisory CPE as accredited by the Association for Clinical Pastoral Education, Inc.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

To provide clinical education for pastoral care professionals as well as other health care providers in the spiritual care of patients and families within an interdisciplinary context

Student learning outcomes

- Student maintains personal integrity and a deepening pastoral identity (ACPE Standard 315, Outcome 315.1).
- Student demonstrates emotional and spiritual maturity (ACPE Standard 315, Outcome 315.2).
- Student forms meaningful pastoral relationships (ACPE Standard 315, Outcome 315.3).
- Student self-supervises their own ongoing pastoral practice (ACPE Standard 315, Outcome 315.4).
- Student refines their professional identity as a clinical pastoral educator (ACPE Standard 315, Outcome 315.5).
- Student demonstrates awareness of how their own culture affects professional and personal identity, pastoral practice, the supervisory relationship and student learning (ACPE Standard 315, Outcome 315.6).
- Student articulates understanding of and methodology for clinical pastoral supervision based on a critical grasp of the professional literature relating to the field of clinical supervision (Standard 315, Outcome 316.1).
- Student articulates and implements a philosophy of CPE based on an educational model integrating the theory and practice of CPE, which is based on and congruent with their own theology (Standard 316, Outcome 316.2).
- 9. Student articulates rationale for multicultural competence, integrating the theory and practice of CPE, which is based on and congruent with their own theology (Standard 316, Outcome 316.3).
- Student assesses an individual student's learning patterns, personality, religious history and cultural values as a basis for supervisory strategies (ACPE Standard 317.1, Outcome 317.1.1).
- 11. Student supervises students' pastoral work, giving attention to unique patterns of personal and professional development, including the ability to assist students' movement toward pastoral identity (ACPE Standard 317.1, Outcome 317.1.2).
- Student defines and evaluates students' pastoral and personal resources, and uses supervisory strategies and interventions to facilitate students' learning and development in pastoral care (ACPE Standard 317.1, Outcome 317.1.3).
- 13. Student assists students in taking responsibility for formulating a learning process and evaluating the results of the learning experience (ACPE Standard 317.1, Outcome 317.1.4).

- Student uses their own personality and personal, religious and cultural history as a teaching resource in shaping a personal supervisory style (ACPE Standard 317.1, Outcome 317.1.5).
- Student facilitates development of group interpersonal interaction (ACPE Standard 317.2, Outcome 317.2.1).
- 16. Student enables students to use their responses to the program as a learning experience (ACPE Standard 317.2, Outcome, 317.2.2).
- Student develops and organizes programs of CPE based on program educational principles appropriate to experiential learning (ACPE Standard 318, Outcome 318.1).
- 18. Student manages CPE programs effectively (ACPE Standard 318, Outcome 318.2).
- Student develops a variety of CPE program resources (ACPE Standard 318, Outcome 318.3).
- Student uses diverse clinical educational methods (ACPE Standard 318, Outcome 318.4).
- 21. Student works with the theological implications of the ministry context (ACPE Standard 318, Outcome 318.5).
- Student understands and applies professional organizational ethics as they relate to CPE and pastoral practice (ACPE Standard 318, Outcome 318.6).
- Student uses appropriate clinical skills and teaching methods that integrate
 the role of context and culture in pastoral practice and education (ACPE
 Standard 318, Outcome 318.7).
- 24. Student advocates for students based on awareness of how persons' social locations, systems and structures affect their ministry, learning and the educational context (ACPE Standard 318, Outcome 318.8).
- Student considers cultural factors in the use of learning assessments, educational strategies, curriculum resources and evaluation procedures (ACPE Standard 318, Outcome 318.9).
- Student integrates educational theory, knowledge of behavioral science, professional and organizational ethics, theology and pastoral identity into supervisory function (ACPE Standard 319, Outcome 319.1).
- Student demonstrates awareness of the cultural contexts of diverse student groups and clinical populations that integrates and articulates ethnic identity development and its implications for pastoral practice and supervisory relationships (ACPE Standard 319, Outcome 319.2).

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must:

- Follow, under faculty guidance, the procedures outlined in ACPE's Manual on Certification
- 2. Meet with faculty annually for review of progress and continuation in the
- 3. Complete a minimum of 44 credit hours in accordance with the approved curriculum
- 4. Complete all core courses
- 5. Complete all required elective course hours

Students who have completed degree requirements may continue to enroll as special students if completing residency requirements at VCU Medical Center or certification requirements with the ACPE.

Curriculum requirements

Only students admitted to this concentration are eligible to take courses numbered 653 through 696

Courses	Credi hours	
Core curriculum	37	
PATC 615 Theory of Group Leadership	2	

PATC 640 Research Basics for Hospital Chaplains	1
PATC 641 Evidence-based Inquiry for Hospital Chaplains	1
PATC 642 Developing and Presenting Chaplaincy Research	1
PATC 653 Patient Counseling Evaluation I	4
PATC 654 Patient Counseling Evaluation II	4
PATC 661 History of Pastoral Supervision	3
PATC 663 Theory of Pastoral Supervision I	3
PATC 664 Theory of Pastoral Supervision II	2
PATC 694 Advanced Clinical Pastoral Supervision	7
PATC 696 Intensive Supervisory Practicum	9

Electives

Options for completing seven hours of elective study include the following:

PATC 665 Selected Topics in Pastoral Supervision (may be repeated for total of 4 credits)

PATC 692 Independent Study in Pastoral Supervision (may be repeated for total of 4 credits)

PATC 697 Clinical Research (may be repeated for total of 5 credits)

Other electives may be allowed with prior permission of the program director and chair.

Total graduate credit hours required (minimum)

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Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Students receive a Department of Patient Counseling student handbook during orientation.

Patient Counseling, Master of Science (M.S.), accelerated chaplain certification concentration

Program accreditation

Association for Clinical Pastoral Education

Graduate program director

Angela H. Flack, M.Div.

Director of education, assistant professor and ACPE supervisor ${\bf aflack@vcu.edu}$

(804) 828-0540

Additional contact

Russell H. Davis, Ph.D.

Associate professor, ACPE supervisor and chair, Department of Patient Counseling

rhdavis2@vcu.edu

(804) 828-0540

Program website: sahp.vcu.edu/ptc

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Patient Counseling, Certificate in (Post-baccalaureate graduate certificate)
Patient Counseling, Master of Science (M.S.) with a concentration in chaplain certification

Patient Counseling, Master of Science (M.S.) with a concentration in supervisory clinical pastoral education

Patient Counseling, Master of Science (M.S.)/Divinity, Master of (M.Div.) from the Baptist Theological Seminary in Richmond or the Samuel DeWitt Proctor School of Theology at Virginia Union University [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Patient Counseling, Master of Science (M.S.), accelerated chaplain certification concentration			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.S.	entry:		GRE
	Fall	Jun 1	
	Spring	Nov 1	International students
	Summer	Mar 1	required to present
			TOEFL scores

In addition to the general admission requirements of the VCU Graduate School, applicants must have successfully completed undergraduate training and hold a bachelor's degree or its equivalent from an accredited institution reflecting ability to perform at the graduate level, as well graduate degree in a health-related field. Students must apply and be accepted to VCU's Graduate School to participate in the clinical pastoral education program.

ACPE application fact sheets and narrative instructions can be found at http://s531162813.onlinehome.us/forms.

Accelerated chaplain certification concentration in the Master of Science

- The accelerated chaplain certification concentration in the Master of Science in Patient Counseling is available to students who hold a master's degree and who have completed one unit of ACPE clinical pastoral education.
- Students admitted to this option must have a minimum GPA of 3.0. Submission of the Graduate Examination Record is required when this GPA requirement is not met.
- 3. Applicants holding degrees from recognized foreign institutions should display an acceptable level of English proficiency by achieving a minimum score of 550 on the TOEFL paper-based examination or 100 on the Internetbased examination. The ability to communicate orally and in writing must be presented to the Department of Patient Counseling admissions committee.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on

program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

To provide clinical education for pastoral care professionals as well as other health care providers in the spiritual care of patients and families within an interdisciplinary context.

Student learning outcomes

- Graduates will demonstrate awareness of self with congruence in the care of patients, families and staff (ACPE Standard 312, Outcome 312.1).
- Graduates will demonstrate ability to provide care with sensitivity and respect in a diverse patient, family and staff environment (ACPE Standard 312, Outcome 312.2).
- Graduates will demonstrate the knowledge and provision of intensive and extensive pastoral/spiritual care to persons in crisis (ACPE Standard 312, Outcome 312.3).
- Graduates will demonstrate incorporation of theological understanding and knowledge of the behavioral sciences in care of patients, families and staff (ACPE Standard 312, Outcome 312.4).
- Graduates will demonstrate effective participation as members of a comprehensive health care team (ACPE Standard 312, Outcome 312.5).
- Graduates will demonstrate responsible care and professional boundaries (ACPE Standard 312, Outcome 312.6).
- Graduates will demonstrate the utilization of individual and group supervision for personal and professional development as well as ongoing evaluation of clinical practice (ACPE Standard 312, Outcome 312.7).
- Graduates will demonstrate awareness of professional standards in chaplaincy (ACPE Standard 312, Outcome 312.8).
- Graduates will demonstrate ability to self-supervise and critically reflect on their own pastoral encounters (ACPE Standard 312, Outcome 312.9).

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must:

- Complete a minimum of 30 credit hours in accordance with the approved curriculum
- 2. Complete all core courses
- 3. Complete all required elective course hours

Curriculum requirements

Courses	Credit hours
Core requirements	28
PATC 611 Theory and Practice of Patient Counseling I	5
PATC 612 Theory and Practice of Patient Counseling II	5
PATC 613 Group Process I	2
PATC 614 Group Process II	2
PATC 615 Theory of Group Leadership	2
PATC 617 Supervised Clinical Practice I	5
PATC 635 Clinical Ethics	2
PATC 639 Pastoral Care Management	2
PATC 640 Research Basics for Hospital Chaplains	1

PATC 641 Evidence-based Inquiry for Hospital Chaplains 1
PATC 642 Developing and Presenting Chaplaincy Research 1

Electives 2

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Courses may be taken in patient counseling, gerontology and rehabilitation counseling. Other electives may be allowed with prior permission of the program director and chair.

PATC elective course (500 level or higher) GRTY elective course (620 and 630 series) RHAB elective course (620 and 630 series)

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Students receive a Department of Patient Counseling student handbook during orientation

Patient Counseling, Master of Science (M.S.)/Divinity, Master of (M.Div.) from the Baptist Theological Seminary in Richmond or the Samuel DeWitt Proctor School of Theology at Virginia Union University [combined]

Program accreditation

Association for Clinical Pastoral Education

Graduate program director

Angela H. Flack, M.Div.

Director of education, assistant professor and ACPE supervisor aflack@vcu.edu (804) 828-0540

Additional contact

Russell H. Davis, Ph.D.

Associate professor, ACPE supervisor and chair, Department of Patient

Counseling

rhdavis2@vcu.edu (804) 828-0540

Program website: sahp.vcu.edu/ptc

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Patient Counseling, Certificate in (Post-baccalaureate graduate certificate)
Patient Counseling, Master of Science (M.S.), accelerated chaplain certification
concentration

Patient Counseling, Master of Science (M.S.) with a concentration in chaplain certification

Patient Counseling, Master of Science (M.S.) with a concentration in supervisory clinical pastoral education

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Patient Counseling, Master of Science (M.S.)/Divinity, Master of (M.Div.) from the Baptist Theological Seminary in Richmond or the Samuel DeWitt Proctor School of Theology at Virginia Union University [combined]

Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE
	Fall (preferred)	Jun 1	
		Nov 1	International students
		Mar 1	required (TOEFL)

In addition to the general admission requirements of the VCU Graduate School, applicants must have successfully completed undergraduate training and hold a bachelor's degree or its equivalent from an accredited institution reflecting ability to perform at the graduate level; graduate degree in a health-related field; or two years of graduate theological education. Students must apply and be accepted to VCU's Graduate School to participate in the clinical pastoral education program.

ACPE application fact sheets and narrative instructions can be found at http://s531162813.onlinehome.us/forms.

Combined Master of Science in Patient Counseling and Master of Divinity

- The dual degree (M.S./M.Div.) option is offered cooperatively with two Richmond-area graduate institutions of theological education (the Baptist Theological Seminary at Richmond and the Samuel DeWitt Proctor School of Theology of Virginia Union University).
- The program is designed as a four-year program with four full semesters spent in residence at VCU. Typically, students apply to the Department of Patient Counseling during the first semester of seminary enrollment.
- Students admitted to this option must have a minimum GPA of 3.0. Submission of the Graduate Examination Record is required when this GPA requirement is not met.
- 4. Applicants holding degrees from recognized foreign institutions should display an acceptable level of English proficiency by achieving a minimum score of 550 on the TOEFL paper-based examination or 100 on the Internetbased examination. The ability to communicate orally and in writing must be presented to the Department of Patient Counseling admissions committee.
- Students enrolled in the dual-degree program will remain in good standing at VCU while enrolled in their seminary studies. Each sponsoring institution will grant its respective degree.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and

Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

To provide clinical education for pastoral care professionals as well as other health care providers in the spiritual care of patients and families within an interdisciplinary context

Student learning outcomes

- Graduates will demonstrate awareness of self with congruence in the care of patients, families and staff (ACPE Standard 312, Outcome 312.1).
- Graduates will demonstrate ability to provide care with sensitivity and respect in a diverse patient, family and staff environment (ACPE Standard 312, Outcome 312.2).
- Graduates will demonstrate the knowledge and provision of intensive and extensive pastoral/spiritual care to persons in crisis (ACPE Standard 312, Outcome 312.3).
- Graduates will demonstrate incorporation of theological understanding and knowledge of the behavioral sciences in care of patients, families and staff (ACPE Standard 312, Outcome 312.4).
- 5. Graduates will demonstrate effective participation as a member of a comprehensive health care team (ACPE Standard 312, Outcome 312.5).
- 6. Graduates will demonstrate responsible care and professional boundaries (ACPE Standard 312, Outcome 312.6).
- Graduates will demonstrate the utilization of individual and group supervision for personal and professional development as well as ongoing evaluation of clinical practice (ACPE Standard 312, Outcome 312.7).
- 8. Graduates will demonstrate awareness of professional standards in chaplaincy (ACPE Standard 312, Outcome 312.8).
- 9. Graduates will demonstrate ability to self-supervise and critically reflect on their own pastoral encounters (ACPE Standard 312, Outcome 312.9).

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must:

- Complete a minimum of 44 credit hours in accordance with the approved curriculum
- Complete all core courses
- 3. Complete all required elective course hours
- 4. Submit official seminary transcript with VCU Application to Graduate

Final granting of the Master of Science degree requires an oral review with the faculty demonstrating completion of outcomes for Level II Clinical Pastoral Education or Supervisory Clinical Pastoral Education as determined by the chosen track of study.

Curriculum requirements

Courses	Credit hours
Core curriculum	37
PATC 515 Basic Patient Counseling	9
PATC 611 Theory and Practice of Patient Counseling I	5
PATC 612 Theory and Practice of Patient Counseling II	5
PATC 613 Group Process I	2
PATC 614 Group Process II	2

Flective	1
Pastoral care (seminary course) Ethics (seminary course)	3
PATC 642 Developing and Presenting Chaplaincy Research	1
PATC 641 Evidence-based Inquiry for Hospital Chaplains	1
PATC 640 Research Basics for Hospital Chaplains	1
PATC 639 Pastoral Care Management	2
PATC 635 Clinical Ethics	2
PATC 617 Supervised Clinical Practice I	5
PATC 615 Theory of Group Leadership	2

Course may be taken in patient counseling, gerontology and rehabilitation counseling. Other electives may be allowed with prior permission of the program director and chair.

PATC elective course (500 level or higher) GRTY elective course (620 and 630 series) RHAB elective course (620 and 630 series)

Total graduate credit hours required (minimum) 44

Other information

Students receive a Department of Patient Counseling student handbook during orientation.

Department of Physical Therapy

The Department of Physical Therapy was established in 1945 to provide basic preparation for the practice of physical therapy. Between 1945 and 1954, the program consisted of a 12-month professional course designed to train students for entry into the profession. This program was based upon at least three years of college work or the possession of a registered nurse certificate. A two-year professional program after two years of preparatory college work was initiated in 1954. This program led to the degree of Bachelor of Science in Physical Therapy. In 1968, the Department of Physical Therapy became part of the School of Allied Health Professions. The two-year professional program leading to the Bachelor of Science degree continued through the 1988-89 academic year.

In August 1989, the Department of Physical Therapy, School of Allied Health Professions, began a three-year professional program based on three years of previous college work that leads to a Master of Science degree. On Feb. 8, 2001 the VCU Board of Visitors approved a proposal to offer a Doctor of Physical Therapy as the entry-level professional degree. The State Council of Higher Education in Virginia gave its final approval for the proposal on June 20, 2001. The first class to study the professional program began in July 2002.

In addition to the professional program, the department participates in four collaborative and interdisciplinary Ph.D. programs.

Administration

Thomas Mayhew

Associate Professor and Department Chair

Mission

The Department of Physical Therapy serves the people of the commonwealth of Virginia and the nation by providing educational programs related to physical therapy. The department provides an environment that encourages education through problem solving, free inquiry, professional behavior and scholarship. The department's primary focus is to prepare individuals for general physical therapy practice. These practitioners are educated to serve as an entry point into the health care system for consumers. Post-professional programs provide quality education leading to careers in teaching and research. The department also provides assistance and services to the community and engages in research and scholarly activities related to the practice of physical therapy.

Philosophy

Physical therapy is an integral part of the health care system. Expanding knowledge in the basic and clinical sciences, and changes in the needs and mandates of society, continually place new demands on the physical therapy profession. The faculty of the Department of Physical Therapy is committed to providing educational programs responsive to expanding knowledge and the needs of society.

The primary principle directing the activities of the department is the faculty's commitment to optimal patient care through physical therapy education, research and practice. The faculty strongly believes that physical therapists must have a thorough understanding of the theoretical bases for treatment and skills in problem solving, evaluation and communication.

The faculty also believes that physical therapists have a responsibility to develop skills for lifelong learning (e.g., the ability to find information and to critically analyze that information).

The faculty also is committed to the development and sharing of new knowledge in the field of physical therapy through scholarship and research.

Objectives

The objectives of the Department of Physical Therapy, in concert with the mission of the university and the School of Allied Health Professions, are to:

- Provide an entry-level postbaccalaureate educational program for full-time students with diverse backgrounds and experiences.
- Contribute to interdisciplinary post-professional doctoral programs that
 prepare physical therapists to contribute to the understanding and application
 of therapeutic procedures through basic and applied research and to teach
 both clinical and didactic physical therapy on all academic levels.
- Provide an atmosphere that fosters critical thinking, intellectual curiosity and integrity, freedom of expression, personal growth and professional competence, and a commitment to learning for faculty and students.
- Provide an environment that facilitates research and scholarship directed toward optimizing patient care.
- Provide services to the public and professional communities.

Facilities

The educational facilities for the Department of Physical Therapy are located on the basement floor of A.D. Williams/West Hospital. These buildings, located on the northeast corner of 12th and Broad streets, house administrative and faculty offices, classrooms, physical therapy instructional, computer and research laboratories, and student locker rooms. Classrooms in other buildings on the MCV Campus are used as needed.

Clinical education experiences for professional students are offered in physical therapy clinics throughout Virginia and the country.

Graduate (postprofessional) programs in physical therapy

The Department of Physical Therapy is committed to improving physical therapy services through graduate education and research. The department participates in several cooperative and interdisciplinary doctoral programs. A physical therapy track is offered in the Ph.D. program of the Department of Physiology and Biophysics. An interdisciplinary Ph.D. in Rehabilitation and Movement Science is offered in conjunction with two other departments at VCU: Department of Health and Human Performance in the School of Education and the Department of Physical Medicine and Rehabilitation in the School of Medicine. Also, the department participates in the School of Allied Health Professions' Ph.D. in Health Related Sciences.

Education at the Ph.D. level is a highly independent adventure. The curricula offered by the Department of Physical Therapy through joint ventures with other departments allow students the opportunity to focus on highly divergent aspects of research related to physical therapy. Each of the programs also offers students opportunity to hone teaching skills in preparation for a well-rounded academic career.

Regardless of the chosen program or track, each Ph.D. student conducts a substantial original research project. Individuals interested in doctoral education are encouraged to examine the research interest areas of faculty in each of the

participating departments and to consult with the program directors before submitting their application to a specific program.

Admission requirements

Applications are encouraged from individuals who are practicing physical therapists. Applicants must have graduated from a physical therapy educational program approved by the American Physical Therapy Association. International students must have an equivalent level of education as determined by the Office of International Admissions. Individuals who are not physical therapists are not accepted into the advanced degree programs.

Additional admission requirements for graduate study in the Department of Physical Therapy are as follows:

- 1. A minimum GPA of 2.7 on a 4.0 scale for entry-level professional education.
- Satisfactory score on the general test of the GRE (taken no more than five years prior to admission).
- 3. Three satisfactory letters of recommendation.
- Applicant's written statement of intent for pursuing graduate studies in a particular program.
- 5. Such additional requirements as established for each specific program.

International students also must score a 600 or above on the Test of English as a Foreign Language (TOEFL)(250 on computer-based test).

Financial assistance

Some teaching and research assistantships are available from the Department of Physical Therapy. These assistantships are competitive. Part-time employment as a physical therapy clinician is available in Richmond and surrounding areas. Doctoral students receiving stipends must receive approval of outside employment.

VCU provides three types of student assistance: scholarships, loans, and work study. For information on these types of financial assistance, write to the Office of Financial Aid, Virginia Commonwealth University, MCV Campus, Richmond, VA 23298-0244.

Priority consideration is given to applications received by Jan. 7.

Physical therapy courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to physical therapy (PHTY) courses.

Physical Therapy, Doctor of (D.P.T.)

Program accreditation

Commission on Accreditation in Physical Therapy Education

Graduate program director

Mary S. Shall, P.T., Ph.D. Professor and chair, Department of Physical Therapy msshall@vcu.edu (804) 828-0234

Additional contact

Judy Kendrick D.P.T. admissions coordinator jkendric@vcu.edu (804) 828-0234

Program website: sahp.vcu.edu/pt/prospective/professional

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

D.P.T. entry: Summer The beginning of Examination Nov of the year prior to intended enrollment English-speakin applicants, regar of immigration status, a Test of English as a For Language score least 600 (score 250 on compute	Physical Therapy	y, Doctor of (D.P.T.)		
All test scores si	Degree:	Semester(s) of entry:	The beginning of Nov of the year prior to intended	For non-native English-speaking applicants, regardless of immigration status, a Test of English as a Foreign Language score of at least 600 (score of 250 on computerized exam) All test scores should be reported directly

Special requirements:

The VCU Department of Physical Therapy participates in the American Physical Therapy Association-sponsored physical therapy centralized application service for applicants to the D.P.T. program. All students interested in applying to this program must submit their application materials directly to PTCAS. Applicants who apply through PTCAS will submit a completed Web-based application comprising biographical data, colleges and universities attended, academic course history, physical therapy observation hours, list of reference providers, work experience, extracurricular activities, honors, professional licenses and a personal essay. It is the applicant's responsibility to read and follow all PTCAS and program-specific instructions. Please visit the Department of Physical Therapy website for application deadlines.

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following requirements:

- A Bachelor of Arts or Bachelor of Science degree from an accredited college or university
- 2. A minimum grade-point average of 2.7 (in a 4.0 system)
- A minimum total of 100 volunteer hours in at least two physical therapy practice settings
- 4. Three recommendations, at least one of which is from a physical therapist

Prerequisites for admission to the professional Doctor of Physical Therapy program include a Bachelor of Arts or Bachelor of Science degree from an accredited college or university. If the applicant has received college credit hours for AP courses and/or exams, and those hours are listed on the university transcript, those credit hours will be accepted. A grade of D in any required prerequisite course is not acceptable. A minimum GPA of 2.7 (in a 4.0 system) is required to be considered for admission. The GRE is required; the scores should be reported directly to Virginia Commonwealth University. For non-native English-speaking applicants, regardless of immigration status, a Test of English as a Foreign Language score of at least 600 (score of 250 on computerized exam) is required; scores should be reported directly to Virginia Commonwealth University.

The program of study necessary to be considered for admission to the professional Doctor of Physical Therapy program must include a minimum of the following subject areas and credits:

Biological sciences - 12 credit hours including laboratory experiences

- Must include four credit hours of college-level biology
- Must include four credit hours of anatomy and four credit hours of human physiology, or eight credit hours of anatomy/physiology (An exercise physiology course is not an acceptable substitute for a human physiology course.)
- · Cell biology and histology highly recommended but not required

Chemistry - eight credit hours including laboratory experiences

Mathematics – three credit hours (must be in pre-calculus or a more advanced mathematics course)

Physics – eight credit hours of general physics with laboratory (Courses that emphasize mechanics, electricity, heat and light are highly recommended.)

Psychology – six credit hours (One introductory course and one course in human growth and development or abnormal psychology is required.)

Statistics - three credit hours

In order to complete the total requirements, students are encouraged to elect courses from the following categories: computer science, embryology, histology, cell biology, comparative anatomy, kinesiology, exercise physiology, foreign languages and courses in physical education dealing with an analytical approach to human movement or motor learning.

Students must also present a minimum of 100 volunteer hours in at least two physical therapy practice settings.

Students are required to have current CPR certification.

One of the three required letters of recommendation must be from a physical therapist.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Department of Physical Therapy serves the people of the commonwealth of Virginia and the nation by providing educational programs related to physical therapy. The department provides an environment that encourages education through problem solving, free inquiry, professional behavior and scholarship. The department's primary focus is to prepare individuals for general physical therapy practice. These practitioners are educated to serve as an entry point into the health care system for consumers. Post-professional programs provide quality education leading to careers in teaching and research. The department also provides assistance and services to the community and engages in research and scholarly activities related to the practice of physical therapy.

Preparation of physical therapists

The goal of this program is to provide a quality educational program that prepares students for entry into the profession of physical therapy. The program prepares students to evaluate and manage patients with physical therapy problems effectively and in accordance with ethical principles. The program also provides students with strategies to continually define and meet their own educational needs in order to keep skills and knowledge current throughout their professional careers.

Student learning outcomes

- Examine, diagnose individuals with disabilities: Effectively examine, evaluate, diagnose and determine the prognosis of individuals with impairments, functional limitations and disabilities
- 2. **Apply health promotion principles and practices:** Apply health promotion principles and practices in primary, secondary and tertiary prevention
- 3. Manage PT problems in a safe, ethical manner: Manage physical therapy problems in a safe, ethical, legal and professional manner
- 4. **Use appropriate educational principles:** Use appropriate educational principles to design methods to teach patients/clients, caregivers, colleagues and other health care professionals

- Manage changes in physical function: Effectively manage changes in the physical function and health status of patients/clients
- Select and implement safe PT interventions: Select and implement safe and effective physical therapy interventions and assess the subsequent outcomes
- Determine the need for further examination or cons: Determine the need for further examination or consultation by another physical therapist or for referral to another health care professional
- Manage human and material resources: Manage human and material resources and services to provide high-quality and cost-effective physical therapy services in diverse settings
- Apply concepts and principles of management: Apply concepts and principles of management to effectively supervise support personnel to whom tasks have been delegated
- Effectively document patient information: Effectively document patient information and physical therapy services to colleagues in an organized, logical and concise manner
- 11. Integrate principles of critical inquiry to evaluate, interpret and utilize professional literature in clinical practice: Participate in clinical research activities and critically analyze new concepts in the application of physical therapy practice
- 12. **Effectively communicate with patients:** Effectively communicate, verbally and nonverbally, with patients and their caregivers, health care personnel, and members of the community
- 13. Demonstrate awareness of social, economic factors: Demonstrate an awareness of the influence of social, economic, legislative and demographic factors on the delivery of health care
- 14. Demonstrate understanding of lifelong learning: Demonstrate an understanding of the importance of lifelong learning and a commitment to the physical therapy profession

Degree requirements

In addition to general VCU Graduate School graduation requirements, every professional physical therapy program student must maintain a minimum cumulative grade point average of 3.0. At the end of each semester, the faculty reviews the academic performance of all students. All students must have a GPA of 3.0 by the end of the second academic year in order to matriculate into PHTY 680 Clinical Education III in the third academic year. Physical therapy students must complete all clinical education experiences to the satisfaction of the clinical and academic faculty.

Under no circumstances are physical therapy students permitted to participate in graduation ceremonies if they have not satisfactorily completed all the requirements of the professional physical therapy program curriculum.

Curriculum requirements

Courses	Credit hours
PHTY 501 Gross Anatomy (Physical Therapy)	7
PHTY 502 Kinesiology	4
PHTY 503 Applied Exercise Physiology for Wellness and Health Promotion	3
PHTY 505 Applied Microscopic Anatomy for Physical Therapy	4
PHTY 506 Functional Neuroanatomy	4
PHTY 508 Orthopaedic Physical Therapy I	6
PHTY 510 Rehabilitation I	4
PHTY 512 Professional Aspects of Physical Therapy	2
PHTY 520 Clinical Education I	3
PHTY 531 Evidence-based Practice Concepts	2
PHTY 537 Rehabilitation II	3
PHTY 609 Clinical Biomechanics	3
PHTY 615 Pharmacology (Physical Therapy)	1
PHTY 621 Therapeutic Agents	4
PHTY 623 Cardiopulmonary Physical Therapy	3

PHTY 624 Clinical Problem-solving I	2
PHTY 626 Lifespan I	6
PHTY 627 Lifespan II	2
PHTY 640 Neurologic Physical Therapy	6
PHTY 644 Orthotics and Prosthetics	2
PHTY 646 Clinical Medicine	2
PHTY 648 Orthopaedic Physical Therapy II	6
PHTY 650 Clinical Education II	8
PHTY 651 Professional Issues in Physical Therapy	2
PHTY 654 Clinical Problem-solving II	1
PHTY 661 Administration and Management in Physical Therapy	2
PHTY 670 Clinical Integration of Physical Therapy Concepts	2
PHTY 674 Clinical Problem-solving III	1
PHTY 676 Comprehensive Study of Physical Therapy Practice	2
PHTY 680 Clinical Education III	8
PHTY 691 Special Topics in Physical Therapy (elective)	1
PHTY 695 Clinical Education IV	16
Total graduate credit hours required (minimum)	122
Sample plan of study	
First professional year	
passassass, year	Credit
	hours
Summer semester prior to year one	
PHTY 501 Gross Anatomy (Physical Therapy)	7
Semester total	7
Fall semester one	
PHTY 502 Kinesiology	4
PHTY 503 Applied Exercise Physiology for Wellness and Health	3
Promotion	3
PHTY 505 Applied Microscopic Anatomy for Physical Therapy	4
PHTY 510 Rehabilitation I	4
PHTY 531 Evidence-based Practice Concepts	2
PHTY 615 Pharmacology (Physical Therapy)	1
33 () 13/	
Semester total	18
Spring semester one	
PHTY 506 Functional Neuroanatomy	4
PHTY 508 Orthopaedic Physical Therapy I	6
PHTY 520 Clinical Education I	3
PHTY 537 Rehabilitation II	3
PHTY 623 Cardiopulmonary Physical Therapy	3
Semester total	19
Summer semester one	
PHTY 512 Professional Aspects of Physical Therapy	2
Semester total	2
Second professional year	
Fall semester	
PHTY 609 Clinical Biomechanics	3
PHTY 621 Therapeutic Agents	4
PHTY 624 Clinical Problem-solving I	2
PHTY 648 Orthopaedic Physical Therapy II	6
PHTY 661 Administration and Management in Physical Therapy	2
	-

Semester total		17
Spring semester two		
PHTY 626 Lifespan I	6	
PHTY 627 Lifespan II	2	
PHTY 640 Neurologic Physical Therapy	6	
PHTY 644 Orthotics and Prosthetics	2	
PHTY 646 Clinical Medicine	2	
Semester total		18
Summer semester two		
PHTY 650 Clinical Education II	8	
Semester total		8
Third professional year		
Fall semester three (Block 2 – 8 weeks)		
PHTY 651 Professional Issues in Physical Therapy	2	
PHTY 654 Clinical Problem-solving II	1	
PHTY 670 Clinical Integration of Physical Therapy Concepts	2	
PHTY 676 Comprehensive Study of Physical Therapy Practice	2	
PHTY 691 Special Topics in Physical Therapy (elective)	1	
Semester total		8
Fall semester (Block 2 – 8 weeks) semester		
PHTY 680 Clinical Education III	8	
Semester total		8
Spring semester		
PHTY 674 Clinical Problem-solving III	1	
PHTY 695 Clinical Education IV	16	
Semester total		17
Total credit hours required (minimum)		122

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

A hard copy of the VCU D.P.T. program student handbook and policies and procedures manual is distributed to each entering physical therapy student at orientation.

Rehabilitation and Movement Science, Doctor of Philosophy (Ph.D.) with a concentration in exercise physiology

Graduate program director

Ronald K. Evans, Ph.D.

Associate professor and director of graduate studies, Department of Kinesiology and Health Sciences

rkevans@vcu.edu (804) 828-1948

Additional contact

Sheryl D.G. Finucane, Ph.D., P.T.

Assistant professor and graduate program director, Department of Physical Therapy

sfinucan@vcu.edu

(804) 828-0234

Program website: sahp.vcu.edu/pt/prospective/phd/rehabmovement.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Rehabilitation and Movement Science, Doctor of Philosophy (Ph.D.) with a concentration in neuromusculoskeletal dynamics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements:
Ph.D.	entry:		GRE
	Fall preferred	Applications receive	ed
	· ·	prior to Jan 9 will be	e
		given priority	•
		consideration	

In addition to the general admission requirements of the VCU Graduate School, applicants must:

- Have completed at least one of a master's degree in a related area, 30 hours of post-baccalaureate work (e.g. course work at 500 level or greater) or a first-professional degree program
- 2. Provide official GRE score
- Submit a curriculum vitae or professional resume indicating an applicant's educational and career experience as well as evidence of research potential

Admission decisions are made only on the basis of a completed application packet.

Applicants being considered for admission must complete an interview with a Ph.D. admissions committee representative and/or research faculty member with whom the student would like to work.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Ph.D. in Rehabilitation and Movement Science is an interdisciplinary degree program developed through a collaborative partnership of the departments of Kinesiology and Health Sciences, Physical Therapy, and Physical Medicine and Rehabilitation. The mission of this collaborative degree program is to prepare applied scientists capable of approaching multifaceted health care, preventive medicine and rehabilitation initiatives from an integrative perspective and to prepare graduates to assume research, teaching and leadership positions within rehabilitation and movement science professions.

There are two program concentrations: exercise physiology and neuromusculoskeletal dynamics. The exercise physiology concentration prepares individuals to conduct research, direct external funding initiatives and teach in the area of exercise physiology, with particular focus on physical activity's impact on chronic disease states. The neuromusculoskeletal dynamics concentration prepares individuals for research, teaching and clinical initiatives associated with the identification and rehabilitation of movement disorders.

Student learning outcomes

At the completion of the program students will:

- Demonstrate teaching effectiveness in the classroom, clinical environment or both
- Have disseminated research findings at an appropriate regional, national or international conference
- Demonstrate the ability to independently collect research data, analyze research data and synthesize conclusions from research data

Degree requirements

In addition to general VCU Graduate School graduation requirements, students pursuing the Ph.D. in Rehabilitation and Movement Science must successfully complete:

- 1. A minimum of 50 credit hours developed in conjunction with their advisers
- 2. Written and oral comprehensive examinations
- 3. All other university requirements of qualification for degree candidacy
- 4. Written dissertation based on a focused line of research
- 5. Oral defense of the dissertation

Curriculum requirements

Courses

Credit hours

Research core courses	12
ALHP 761 Health Related Sciences Research Design or EDUS 710	3
Educational Research Design or HADM 761 Health Services Research	
Methods I or HEMS 600 Introduction to Research Design in Health and	
Movement Sciences	
STAT/BIOS 543 Statistical Methods I	3
STAT/BIOS 544 Statistical Methods II	3
One additional research design class from above or one of the following: ALHP 716 Grant Writing and Project Management in Health Related Sciences or BIOS 531 Clinical Epidemiology or BIOS 553 Linear Regression or BIOS 571 Clinical Trials or BIOS 572 Statistical Analysis of Biomedical Data	3
Core concentration	18
PHIS 501 Mammalian Physiology	3
REMS 701 Advanced Exercise Physiology I	3

Laboratory rotations

REMS 703 Cardiovascular Exercise Physiology or REMS 704

Physical Activity

Approved electives (from list below)

Psychobiology of Physical Activity or REMS 705 Metabolic Aspects of

REMS 710 Research Techniques in Rehabilitation and Movement Science 3

Professional development course work	5
REMS 690 Research Seminar in Rehabilitation and Movement Science	3
REMS 793 Teaching Practicum in Higher Education	1
REMS 794 Research Presentation Seminar	1
Dissertation research	12
REMS 798 Research in Rehabilitation and Movement Science	12

Approved electives

Total graduate credit hours required (minimum)

BIOL 524 Endocrinology	3
HEMS 610 Laboratory Techniques in Rehabilitation Science	3
HEMS 675 Clinical Exercise Physiology	3
PHTX 614 Foundation in Psychoneuroimmunology	3
REMS/HEMS 660 Neuromuscular Performance	3
REMS 702 Advanced Exercise Physiology II	3
REMS 703 Cardiovascular Exercise Physiology	3
REMS 704 Psychobiology of Physical Activity	3
REMS 705 Metabolic Aspects of Physical Activity	3

Degree candidacy requirements

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Graduation requirements

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Graduation requirements



Rehabilitation and Movement Science, Doctor of Philosophy (Ph.D.) with a concentration in neuromusculoskeletal dynamics

Graduate program director

Sheryl D.G. Finucane, Ph.D., P.T.

Assistant professor and graduate program director, Department of Physical Therapy

sfinucan@vcu.edu (804) 828-0234

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Additional contact

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Associate professor and director of graduate studies, Department of Kinesiology and Health Sciences

rkevans@vcu.edu (804) 828-1948

Program website: sahp.vcu.edu/pt/prospective/phd/rehabmovement.html

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Ph.D.	entry:		GRE
	Fall preferred	Applications received	i
		prior to Jan 9 will be	
		given priority	
		consideration	

Applications received following the deadline may be considered if space and resources are available.

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- Have completed at least one of a master's degree in a related area, 30 hours of post-baccalaureate work (e.g. course work at 500 level or greater) or a first-professional degree program
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- Demonstrate the ability to independently collect research data, analyze research data and synthesize conclusions from research data

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- Written and oral comprehensive examinations
- All other university requirements of qualification for degree candidacy
- Written dissertation based on a focused line of research
- Oral defense of the dissertation

Curriculum requirements

Credit Courses hours

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STAT/BIOS 543 Statistical Methods I	3
STAT/BIOS 544 Statistical Methods II	3
One additional research design class from above or one of the following: ALHP 716 Grant Writing and Project Management in Health Related Sciences or BIOS 531 Clinical Epidemiology or BIOS 553 Linear Regression or BIOS 571 Clinical Trials or BIOS 572 Statistical Analysis of Biomedical Data	3
Core concentration	18
REMS/HEMS 611 Biomechanics of Human Motion	3
REMS/HEMS 660 Neuromuscular Performance	3
REMS 665 Instrumentation in Motion Analysis	3
Approved electives (from list below)	9
Laboratory rotations	3
REMS 710 Research Techniques in Rehabilitation and Movement Science	3
Professional development course work	
i i oressionar de velopinent course work	5
REMS 690 Research Seminar in Rehabilitation and Movement Science	3
•	
REMS 690 Research Seminar in Rehabilitation and Movement Science	3
REMS 690 Research Seminar in Rehabilitation and Movement Science REMS 793 Teaching Practicum in Higher Education	3
REMS 690 Research Seminar in Rehabilitation and Movement Science REMS 793 Teaching Practicum in Higher Education REMS 794 Research Presentation Seminar	3 1 1
REMS 690 Research Seminar in Rehabilitation and Movement Science REMS 793 Teaching Practicum in Higher Education REMS 794 Research Presentation Seminar Dissertation research	3 1 1
REMS 690 Research Seminar in Rehabilitation and Movement Science REMS 793 Teaching Practicum in Higher Education REMS 794 Research Presentation Seminar Dissertation research REMS 798 Research in Rehabilitation and Movement Science	3 1 1 12
REMS 690 Research Seminar in Rehabilitation and Movement Science REMS 793 Teaching Practicum in Higher Education REMS 794 Research Presentation Seminar Dissertation research REMS 798 Research in Rehabilitation and Movement Science Total graduate credit hours required (minimum)	3 1 1 12
REMS 690 Research Seminar in Rehabilitation and Movement Science REMS 793 Teaching Practicum in Higher Education REMS 794 Research Presentation Seminar Dissertation research REMS 798 Research in Rehabilitation and Movement Science Total graduate credit hours required (minimum) Approved electives	3 1 1 12 12 50
REMS 690 Research Seminar in Rehabilitation and Movement Science REMS 793 Teaching Practicum in Higher Education REMS 794 Research Presentation Seminar Dissertation research REMS 798 Research in Rehabilitation and Movement Science Total graduate credit hours required (minimum) Approved electives EPID 622 Maternal and Child Health	3 1 1 12 12 50
REMS 690 Research Seminar in Rehabilitation and Movement Science REMS 793 Teaching Practicum in Higher Education REMS 794 Research Presentation Seminar Dissertation research REMS 798 Research in Rehabilitation and Movement Science Total graduate credit hours required (minimum) Approved electives EPID 622 Maternal and Child Health PSYC 603 Developmental Processes	3 1 1 12 12 50
REMS 690 Research Seminar in Rehabilitation and Movement Science REMS 793 Teaching Practicum in Higher Education REMS 794 Research Presentation Seminar Dissertation research REMS 798 Research in Rehabilitation and Movement Science Total graduate credit hours required (minimum) Approved electives EPID 622 Maternal and Child Health PSYC 603 Developmental Processes PSYC 614 Infant Growth and Development	3 1 1 12 12 50

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

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Graduation requirements



Department of Radiation Sciences

The Department of Radiation Sciences is an integral part of the School of Allied Health Professions and shares its values. The department serves as a national leader in the education of students in the radiation sciences and provides learning opportunities that are innovative and educationally sound. Strong linkages with clinical affiliates and their staffs are vital to the department's success. Faculty and staff work in a cooperative spirit in an environment conducive to inquisitiveness and independent learning to help a diverse student body develop to its fullest potential. The faculty is committed to the concept of lifelong learning and promotes standards of clinical practice that will serve students throughout their professional careers. Faculty members serve as resources for professionals in practice and contribute to an expanded knowledge base in the field of clinical radiation sciences.

The mission of the Department of Radiation Sciences is to enable a diverse student body to develop its fullest potential and to graduate baccalaureate-level radiologic health professionals who demonstrate outstanding technical, communication and critical-thinking skills.

Department of Radiation Sciences' goals

- For entry-level and second modality programs, students will be clinically competent.
 - a. Students will attain clinical competence.
 - Graduates will demonstrate clinical competence while employed in the radiation sciences.
- 3. Students will communicate effectively.
 - Students will demonstrate effective communication during their clinical experience.
 - Students will demonstrate effective communication through the research project.
 - Graduates will demonstrate effective communication while employed in the radiation sciences.
- 4. Students will demonstrate critical-thinking skills.
 - Students will demonstrate critical-thinking skills during their clinical experience.
 - Students will demonstrate critical-thinking skills in developing their research project.
- 3. Students will model professionalism.
 - Students will demonstrate professionalism during their clinical experience.
 - Graduates will demonstrate professionalism while employed in the radiation sciences.
- 3. The department will assure program effectiveness.

Administration

Jeffrey S. Legg

Associate Professor and Department Chair www.sahp.vcu.edu/radsci

History

Radiologic technology education began at the Medical College of Virginia in the 1930s with a one-year training program in radiography. This program has undergone a number of changes through the years to evolve into the current baccalaureate educational program.

A concentration in nuclear medicine technology was added in 1984 and in radiation therapy in 1992. Degree-completion programs have been added to provide an opportunity for certified technologists and therapists to complete requirements for the baccalaureate degree.

Facilities

The educational facilities for the Department of Radiation Sciences are located at 701 W. Grace St., Suite 2100. These facilities include energized laboratories in radiography, nuclear medicine, radiation therapy and mammography. The radiography laboratory includes a digital imaging system. In addition, the radiation therapy laboratory has a 3-D treatment planning system.

During the various phases of the curriculum, students will be assigned to one or more of the following affiliate institutions: VCU Health System's MCV Hospitals, McGuire Veterans Affairs Medical Center, CJW Medical Center, Southside Regional Medical Center and Henrico Doctors' Hospitals.

Clinical radiation sciences courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow these links to clinical radiation sciences (CLRS) courses or the (CLRZ) laboratories.

Department of Rehabilitation Counseling

Founded in 1955, the Department of Rehabilitation Counseling serves as a national leader in the professional preparation of certified rehabilitation counselors who exercise skill and competence on a high ethical level and with personal integrity. Accessible, innovative, research-based educational experiences that encourage the use of a critical and exploratory attitude are emphasized. The department seeks to perpetuate active programs of research and service, and maintain high levels of teaching competence. In partnership with students, community agencies and consumer and professional organizations, the department endeavors to advance the personal, social and economic independence of individuals with disabilities.

The Department of Rehabilitation Counseling is fully accredited by the Council on Rehabilitation Education (CORE), and is the only such program in the commonwealth of Virginia. The purpose of accreditation is to promote the effective delivery of rehabilitation services to people with disabilities by fostering ongoing review and improvements of rehabilitation education programs. CORE has developed a field-based research accreditation process that has gained widespread acceptance in the professional accreditation movement. With over 2,000 alumni, the department also enjoys solid relationships with many community organizations that serve as excellent sites for clinical training.

Administration

Amy J. Armstrong Department Chair

Faculty adviser

Every student must have a faculty adviser to guide the student regarding course selection and scheduling, to supervise his/her research and to act as a channel of communication with the department, to other departments, and to the Graduate School. When the student receives notification of admission to the department, it is his/her responsibility to contact the faculty adviser to plan the program of study. Students consult with faculty advisers on a regular basis to ensure orderly progress through the entire program of study, choose clinical placement sites, select electives and plan their careers.

Pathways

Pathways, initiated in the spring of 1996, is a unique interdisciplinary program concentration designed for undergraduate students from a wide variety of academic departments who are interested in pursuing alcohol and drug rehabilitation studies. A sequence of recommended courses is offered to students who are majoring in psychology, criminal justice, social work, pharmacy, nursing, rehabilitation counseling and other academic and professional disciplines. The sequence of course work depends upon the level of intensity sought by the student, and it may range from only a single introductory course to a complete specialization. Pathways enables students to select a curricular path that matches their substance abuse rehabilitation interest regardless of their discipline. The program is available to undergraduates and is arranged in collaboration with the

students major adviser and/or the director of the rehabilitation substance abuse counselor education concentration.

Rehabilitation counseling courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to rehabilitation counseling (RHAB) courses.

Professional Counseling, Certificate in (Post-master's certificate)

Graduate program director

Amy J. Armstrong, Ph.D.

Associate professor and chair, Department of Rehabilitation Counseling ajarmstro@vcu.edu (804) 827-0913

Program website sahp.vcu.edu/rehab/programs/certificate.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Related Sciences, Doctor of Philosophy (Ph.D.)
Rehabilitation Counseling, Master of Science (M.S.)
Rehabilitation Counseling, Master of Science in (M.S.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Professional Counseling, Certificate in (Post-master's certificate)			
Degree: Post-master's	Semester(s) of entry:	Deadline dates:	Test requirements:
certificate	Fall Spring	Apr 1 Oct 1	

Special requirements:

Statement of academic and professional goals and of previous work or volunteer experience; three letters of reference from professors, employers or others who can assess applicant's capabilities (nonfamily members). A personal interview may be required.

In addition to the general admission requirements of the VCU Graduate School, applicants must have completed a master's degree in rehabilitation counseling or a related discipline.

Upon admission to the program, students must meet with an academic adviser to design an approved course of study that leads to the completion of the educational requirements for licensure or certification as a professional counselor.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goals

The post-master's certificate program in professional counseling is designed for persons who hold the Master of Science or Master of Arts degree in counseling from VCU or other accredited institutions. The intent is to assist students in meeting the educational requirements for the Licensed Professional Counselor, the Licensed Substance Abuse Practitioner and the Certified Substance Abuse Counselor credentials in Virginia and other states.

The certificate program also may be pursued to fulfill preservice or continuing education requirements for various national certifications, such as National Certified Counselor or Certified Rehabilitation Counselor. Specialization requirements may exceed the minimum number of required credit hours for the certificate program as a whole.

Courses are selected from course offerings of the Master of Science in Rehabilitation Counseling program based on individualized need and in conjunction with a faculty adviser.

Specific goals include but are not limited to:

- 1. The encouragement of advanced graduate education in counseling
- 2. The facilitation of the professional counselor's career development efforts and goals
- 3. The facilitation of the acquisition or maintenance of professional state licenses or national certificates
- 4. The expansion of the student's awareness and expertise in specialized counselor roles and functions

Student learning outcomes

Upon completion of the program, the graduate will be able to:

- Develop and maintain confidential counseling relationships with individuals using established skills and techniques
- Establish, in collaboration with the consumer, individual counseling goals and objectives
- 3. Apply advanced counseling and interviewing skills
- 4. Employ consultation skills with and on behalf of the consumer

Degree requirements

In addition to general Graduate School graduation requirements,

- Students must complete a minimum of 15 graduate credit hours of course
 work in professional counseling that leads to the completion of the
 educational requirements for licensure or certification as a professional
 counselor, as prescribed in their approved courses of study. Specialization
 requirements may exceed the minimum number of required credit hours for
 the certificate program as a whole.
- 2. Students must maintain an overall minimum grade point average of 3.0.
- 3. The 15 graduate credit hours must not duplicate previous graduate course work completed at VCU or other institutions.
- The 15 graduate credit hours must include six graduate credit hours in advanced counseling skills.
- 5. Transfer credits are not accepted.

Curriculum requirements

Upon admission to the program, students must meet with an academic adviser to design an approved course of study that leads to the completion of the educational requirements for licensure or certification as a professional counselor. Each plan of study is individualized, but may include courses from the following list, if approved by the faculty adviser.

Courses

Credit hours

Licensed Professional Counselor credential

RHAB 613 Advanced Rehabilitation Counseling Seminar (three-credit course; may be repeated for a total of nice credit hours)* (possible topics: cognitive behavioral therapy; crisis counseling, etc.)	9
RHAB 614 Counseling, Death and Loss*	3
RHAB 615 Human Growth and Development	3
*Courses that may satisfy the six graduate credit hours in advanced counseling skills requirement	
Total graduate credit hours required (minimum)	15
Certified Rehabilitation Counselor credential	
(Choose five courses.)	
RHAB 525 Introduction to Rehabilitation Counseling	3
RHAB 611 Theories of Professional Counseling	3
RHAB 623 Career Counseling and Job Placement	3
RHAB 624 Assessment and Evaluation	3
RHAB 640 Medical and Psychosocial Aspects of Disabilities	3
RHAB 633 Case Management	3
RHAB 654 Multicultural Counseling	3
RHAB 691 Counseling Techniques	3

Licensure requirements

Refer to the Department of Rehabilitation Counseling website for additional information on Licensed Professional Counselor and the Commission on Rehabilitation Counselor Certification website for Certified Rehabilitation Counselor examination requirements.

Total graduate credit hours required (minimum)

Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Rehabilitation Counseling, Master of Science in (M.S.)

Program accreditation

Council on Rehabilitation Education

Graduate program director

Amy J. Armstrong, Ph.D.

Associate professor and chair, Department of Rehabilitation Counseling ajarmstr@vcu.edu (804) 827-0913

Additional contact:

Christopher C. Wagner, Ph.D. Associate professor and vice chair ccwagner@vcu.edu (804) 827-0916

Program website: sahp.vcu.edu/rehab

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Related Sciences, Doctor of Philosophy (Ph.D.) with a concentration in rehabilitation counseling

Rehabilitation Counseling, Master of Science in (M.S.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Rehabilitation Counseling, Master of Science in (M.S.)			
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: Graduate Record
	Fall	Mar 1	Examination or Miller Analogies Test

Special requirements:

15

Full- and part-time students can be accommodated by the program. Applications are reviewed on an ongoing basis. To be considered, all pertinent materials must be received in the department by March 1.

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following requirements:

- An undergraduate GPA of 3.0 on a 4.0 scale; or 3.0 in the last 60 semester credit hours (based upon transcripts provided to the Graduate School)
- Three positive letters of reference (on reference form provided by the Graduate School) from professors, employers or someone who knows the applicant's capabilities (not family member)
- Satisfactory performance on either the GRE or the MAT
- A relevant and clear statement of goals for graduate study and career
- Statement of previous work or volunteer experience

A personal interview with a faculty member may also be required.

A complete set of application materials is available from the Graduate Admissions website.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

> General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The VCU Department of Rehabilitation Counseling serves as a national leader in the professional preparation of certified rehabilitation counselors who will exercise skill and competence on a high ethical level and with personal integrity. The department seeks to perpetuate active programs of research and service and maintain high levels of teaching competence. In partnership with students, community agencies and consumer and professional organizations, the Department of Rehabilitation Counseling endeavors to enhance the personal, social and economic independence of individuals with disabilities.

Student learning outcomes

Upon completion of the program, the graduate will be able to:

- Satisfactorily practice in a legal and ethical manner
- Satisfactorily practice with individuals and groups
- Satisfactorily practice rehabilitation case management

- Satisfactorily show knowledge of career development
- · Satisfactorily identify/use assessment information
- · Satisfactorily practice job development/placement
- · Satisfactorily use information from rehabilitation research

Degree requirements

In addition to general VCU Graduate School graduation requirements, the minimum degree requirement is 48 graduate credit hours, including 33 credit hours of didactic course work, 100 hours of fieldwork, 600 hours of internship and three credit hours of electives.

Graduates from accredited rehabilitation counseling programs are typically trained in counseling theory and techniques; individual, group and environmental assessment; psychosocial and medical aspects of disability; human development; cultural diversity; principles of psychiatric rehabilitation, case management and rehabilitation planning; issues and ethics in rehabilitation service delivery; technological adaptation; vocational evaluation and work adjustment; career counseling; implementation of the Americans with Disabilities Act; job development; and placement.

The on-campus Master of Science in Rehabilitation Counseling degree has been available since 1955. The program consists of 48 graduate credit hours. Currently, 90 full- and part-time graduate students are enrolled on campus. In addition, the same degree has been made available on a distance-learning basis since July 1999. Ten required courses and the one elective are available online according to a predetermined schedule. Two clinical counseling courses also are available on site in a compressed schedule (typically one to two weeks) at various locations. Alternately, up to 12 hours may be taken at an accredited graduate counseling program and accepted as transfer credit hours with prior approval. Approved internships with appropriate faculty and agency supervision are negotiated by the department, student and the local community organization.

Transfer credit

A maximum of 12 graduate credit hours may be transferred from another VCU graduate program or outside institution if not applied previously to another degree. Transfer credit hours must carry a minimum grade of B from an accredited institution. Acceptance of transfer credit hours is made at the level of the department chair and dean of the School of Allied Health Professions. Transfer credit hours earned as a nondegree-seeking graduate student are limited to six credit hours. Credit hours earned as deficiency hours or to demonstrate the ability to compete at the graduate level, though transferable, may not be applied to the 48-credit-hour program of study.

Curriculum requirements

Courses	Credit hours
RHAB 521 Addiction Counseling	3
RHAB 525 Introduction to Rehabilitation Counseling	3
RHAB 611 Theories of Professional Counseling	3
RHAB 612 Group Counseling Theories and Techniques	3
RHAB 615 Human Growth and Development	3
RHAB 623 Career Counseling and Job Placement	3
RHAB 624 Assessment and Evaluation	3
RHAB 625 Research and Program Evaluation	3
RHAB 633 Case Management	3
RHAB 640 Medical and Psychological Aspects of Disabilities	3
RHAB 642 Diagnosis and Treatment of Mental Health Disorders	3
RHAB 654 Multicultural Counseling	3
RHAB 691 Counseling Techniques	3
RHAB 695 Supervised Clinical Practice in Substance Abuse Rehabilitation or RHAB 696 Supervised Clinical Practice in Rehabilitation Counseling (includes 600 hours of internship and CRC/ comprehensive examination)	6

Possible electives

3

RHAB 533 Directed Readings in Rehabilitation

RHAB 613 Advanced Rehabilitation Counseling Seminar

RHAB 685 Institutes and Workshops in Rehabilitation (ethics)

RHAB 688 Institutes and Workshops in Rehabilitation (positive leadership)

Other topics may be offered as well

Total graduate credit hours required (minimum)

48

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

A student handbook is made available to students through a closed electronic system (Blackboard) and at new student orientation.

Rehabilitation Counseling, Master of Science (M.S.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Graduate program director

E. Ayn Welleford, Ph.D. Chair, Department of Gerontology ewellefo@vcu.edu (804) 828-1565

Program website: sahp.vcu.edu/gerontology

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Aging Studies, Certificate in (Post-baccalaureate graduate certificate)

Occupational Therapy, Master of Science in (M.S.O.T.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Apply online at graduate.admissions.vcu.edu.

The Department of Gerontology, in cooperation with other programs at the university, provides students interested in working with elders or in gerontological settings with the opportunity to complete the Certificate in Aging Studies while also completing requirements for other degree programs. Students must apply separately to the participating programs and must meet all admission and degree requirements for both programs. In some cases, and with the approval of the advisers of both programs, course work in one program may be approved to satisfy a course requirement in another program.

The Department of Rehabilitation Counseling, in cooperation with the Department of Gerontology, provides its degree-seeking students with the opportunity to earn the Certificate in Aging Studies while concurrently completing the requirements for the Master of Science in Rehabilitation Counseling. Students must meet admission requirements for both the rehabilitation degree and the aging studies certificate program, and admission into one is independent of the other.

Curriculum requirements

Courses	Credit hours
GRTY 601 Biological and Physiological Aging	3
GRTY/PSYC 602 Psychology of Aging	3
GRTY 603 Social Gerontology	3
GRTY 615 Aging and Mental Disorders or GRTY 641 Survey of Psychological Assessment and Treatment of the Older Adult	3
GRTY 692 Independent Studies	3
RHAB 625 Research and Program Evaluation	3
RHAB 696 Supervised Clinical Practice in Rehabilitation Counseling	3

21

Total graduate credit hours required (minimum)

Contact the respective departments for additional curriculum information.

Virginia Center on Aging

The Virginia Center on Aging, established at VCU by the Virginia General Assembly in 1978, is a statewide resource for aging-related research, education, service, training and technical assistance. It serves as a focal point for the collection, assessment and maintenance of data on elders in the commonwealth; designs and tests innovative demonstration projects in education and service delivery; and assists public and private organizations in meeting the needs of older citizens.

The Virginia Center on Aging and the Department of Gerontology maintain the Information Resources Center, a broad collection of print and audiovisual materials on aging that is available on loan. Short reports and training manuals may be obtained at cost. The Virginia Center on Aging also administers the Alzheimer's and Related Diseases Research Award Fund that provides seed grants of \$25,000 each to researchers in Virginia in order to investigate biomedical, psychosocial, clinical, public policy and other aspects of dementing illness.

The Virginia Center on Aging regularly partners with other units of VCU in developing, conducting and evaluating research and training projects related to aging, disabilities, lifelong learning and health problems. The center is located in the Theater Row building at 730 E. Broad St.



2014-15 Graduate and Professional Programs Bulletin

School of the Arts

The School of the Arts offers 25 degree programs and comprises more than 3,000 students. With the inclusion of our campus in Qatar come an additional four programs. It all began as one night class taught by Theresa Pollak in the fall of 1928.

The school strives to be a stimulating community of students and teachers who cross the boundaries of conventional art and design disciplines, apply aesthetic and intellectual vision to the expression of complex ideas, value artistic tradition and experimentation in the search for creative solutions, connect international experience with professional education, integrate technical skills with theoretical understanding and care about the impact of their work on people.

Administration

325 North Harrison Street P.O. Box 842519 Richmond, Virginia 23284-2519 (804) 828-2787

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Joseph Seipel

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Christina Lindholm

Associate Dean for Curriculum and Assessment

Susan King Roth

Senior Associate Dean

Nancy M. Scott

Associate Dean for Academic Administration

Jody Symula

Interim Dean for Students

Accreditation

VCU School of the Arts is accredited by the National Association of Schools of Art and Design, the National Association of Schools of Dance, the National Association of Schools of Music, and the National Association of Schools of Theatre.

Visual arts

Visual arts degree programs: art education, art history, cinema, communication arts, craft and material studies, fashion (design and fashion merchandising), graphic design, interior design, kinetic imaging, painting and printmaking, and sculpture

National Association of Schools of Art and Design

Art education (bachelor's and master's degrees)

National Association of Schools of Art and Design, National Council for Accreditation for Teacher Education, Virginia Department of Education

Interior design (bachelor's degree)

National Association of Schools of Art and Design, Council for Interior Design Accreditation

Performing arts

Dance and choreography (bachelor's degree) National Association of Schools of Dance

Music (bachelor's and master's degrees)

National Association of Schools of Music

Music education concentrations (bachelor's and master's degrees)
 National Council for Accreditation National Association of Schools of Music, for Teacher Education, Virginia Department of Education

Theatre (bachelor's and master's degrees)

Programs

The School of the Arts offers degrees in the following areas of study:

Art Education

- · Bachelor of Fine Arts
- · Master of Art Education

Art History

- · Bachelor of Arts
- Master of Arts
- Doctor of Philosophy

Cinema

Bachelor of Arts

Communication Arts

Bachelor of Fine Arts

Craft and Material Studies

- · Bachelor of Fine Arts
- See Fine Arts concentrations

Dance and Choreography

· Bachelor of Fine Arts

Design

 Master of Fine Arts (with concentrations in interior environments and visual communications)

Fashion

- Bachelor of Arts
- · Bachelor of Fine Arts

Fine Arts

 Master of Fine Arts (with concentrations in ceramics, fibers, furniture design, glassworking and jewelry/metalworking; kinetic imaging; painting or printmaking; photography and film; sculpture)

Graphic Design

· Bachelor of Fine Arts

Interior Design

· Bachelor of Fine Arts

Kinetic Imaging

- · Bachelor of Fine Arts
- See Fine Arts

Music

- · Bachelor of Arts
- · Bachelor of Music
- Master of Music

Painting and Printmaking

- · Bachelor of Fine Arts
- · See Fine Arts

Photography and Film

- · Bachelor of Fine Arts
- · See Fine Arts

Sculpture

- · Bachelor of Fine Arts
- · See Fine Arts

Theatre

- Bachelor of Arts
- Bachelor of Fine Arts

Master of Fine Arts

School of the Arts Visual Resource Center

Virginia Commonwealth University's Cabell Library houses an extensive collection of books, publications and magazines on the visual and performing arts. VCU subscribes to ARTstor, the largest online image bank for the arts.

VCU is a short distance from Washington, D.C., Baltimore, Philadelphia and New York and the museums, libraries and research facilities in those urban areas.

Graduate information

Graduate admission

Admission procedures

Application forms and instructions for applying to all graduate programs in the School of the Arts are available on the School of the Arts Web site at www.vcu.edu/arts/.

General information about admission to graduate study and application procedures can be found in the Graduate School section of this bulletin or on the Graduate School Web site.

Admission requirements

For Ph.D. degree, see Ph.D. in Art History section.

For all other degrees (M.A., M.A.E., M.F.A. and M.M.):

- Applicants should hold the baccalaureate degree from an accredited institution.
- It is expected that applicants will have a 3.0 ("B") average on the last 60 semester hours of undergraduate work.

The prospective student should consult the appropriate section of this bulletin for additional admission requirements for a particular degree program. Such requirements include:

- The Graduate Record Examination (GRE) for applicants to art history.
- An audition and examination for music applicants, as described in the program description for the M.M. degree.
- An audition or presentation of portfolio, as well as a personal interview, for applicants for the M.F.A. in Theatre.
- A portfolio review for all applicants to the visual arts M.F.A. degrees (a personal interview is encouraged).

Graduate student status

The School of the Arts has two categories of graduate students — full time or part time. Full- or part-time graduate students are accepted either provisionally or as students with full standing into the graduate degree programs of the various departmental areas. These students may matriculate full time or part time except for the residence limitation discussed elsewhere in this bulletin.

Most graduate programs in the school require full-time status, including the concentrations in the Master of Fine Arts in Fine Arts degree (photography and film, painting and printmaking, sculpture, kinetic imaging and ceramics, fibers, furniture design, glassworking and jewelry/metalworking) and the visual communication track of the M.F.A. in Design. Check with the individual departments to confirm whether full-time status is required or part-time status is permitted.

Holders of the baccalaureate degree from recognized institutions may enroll in graduate courses as nondegree-seeking special graduate students, but such courses are not applicable toward a graduate degree from this institution unless the student is accepted into a graduate degree program prior to the conclusion of the semester in which the student registered as a nondegree-seeking graduate student.

A nondegree-seeking student who is later admitted as a degree-seeking student will not be allowed to apply toward a degree more than six credits earned as a nondegree-seeking student.

The second type of nondegree-seeking graduate student is the student who holds a baccalaureate degree, who wishes to take graduate courses for personal enrichment, and who does not intend to work toward a graduate degree. There is

no limit to the number of credits that students in this category may take, as long as the academic performance is credible.

All nondegree-seeking ("special") graduate students must have written permission from the chair of the appropriate department in order to enroll in classes.

Registration for graduate students

Graduate art students are urged to plan their schedules and register during advanced registration. Registration materials for students accepted into advanced degree programs are available in the department during the advance registration and registration periods. The advantage of advanced registration is that of securing places in classes before they are closed and of obtaining proper counsel from advisers. All graduate students must see their assigned advisers for schedule planning and signature approval. New nondegree-seeking graduate students, or those contemplating registration as such, must secure written permission to register from the departmental chair.

Continuous enrollment policy for graduate students

Graduate students in the School of the Arts must observe the University Continuous Enrollment Policy as explained in the Graduate Studies at VCU chapter of this bulletin.

Candidates for all advanced degree programs, after completing all formal course work, must register for at least one semester hour of credit each semester, except summer, until the culminating graduate project (dissertation, thesis, creative project, exhibition, recital, etc.) is completed and the student is ready to graduate. Also, if candidates intend to graduate in August, they must be enrolled for at least one semester hour in the summer session.

Transfer credit and graduate study

A maximum of nine graduate credits may be transferred from other accredited institutions and applied to any of the graduate degree programs in the School of the Arts. However, transfer credit is not typically granted to incoming students and is approved at the discretion of the department chair.

Graduate advising

All students accepted into advanced degree programs must make an appointment with the chair of the department or the graduate adviser prior to registration for their first semester of course work. Normally, the student's initial adviser will be the chair of the department; but students may be assigned an adviser more directly related to their areas of concentration.

Students also are encouraged to consult faculty members outside their major area and arrange with the appropriate departmental chair to use facilities and equipment available in other departments.

Finances for graduate students

Special charges

All degree-seeking graduate students are charged an art comprehensive fee. The art comprehensive fee is not charged to students who are registered only in course work to complete a dissertation/thesis/creative project or who are enrolled in order to satisfy the one-credit requirement for continuous enrollment. Nondegree-seeking graduate students enrolled in any of the courses that require an additional outlay for materials will be billed for those individual fees by the Student Accounting Department.

In addition to the comprehensive fee for all majors in the School of the Arts, all students registering for private music lessons pay an applied music fee.

Financial support

The School of the Arts awards a limited number of graduate assistantships and scholarships to full-time students. Please see the specific program requirements for more information and application deadlines.

Advanced degree candidacy

Students seeking an advanced degree in all programs must apply for advanced degree candidacy. Those seeking the M.A.E. And the M.M. must submit the application during or after the completion of the first nine semester credits of graduate work and prior to the completion of 18 semester credits. Students

pursuing the M.F.A. Degree must submit the application during or after the completion of the first 15 semester credits of graduate work and prior to the completion of 30 semester credits. Applications for candidacy are available in the departmental offices and the Office of Graduate Studies, School of the Arts.

Admission to a degree program does not constitute candidacy, and admission to degree candidacy is not an automatic process. Departments carefully review applicants for candidacy on such basis as examination or review of creative work or performance. Upon certification by the department that the applicant has met all departmental expectations, including the minimum 3.0 GPA and is adequately prepared to continue pursuing the degree program, the School of the Arts will admit the applicant to degree candidacy.

Students who are found to be inadequately prepared to continue their graduate programs, but who demonstrate the potential to ultimately fulfill degree requirements will be advised as to what additional work will be needed in order to meet departmental expectations. Candidacy, in such instances, will be postponed until departmental expectations are satisfied; postponement of candidacy may result in termination of financial assistance. Students whose academic or creative work demonstrate no likelihood of successful completion of a graduate program will be denied candidacy by the School of the Arts.

Advanced degree requirements

- Students must achieve candidacy (with the exception of art history students).
- Students must complete all formal course work.
- Students must maintain at least a 3.0 cumulative GPA. No grade below "B" will count toward graduation for students in the art history and the visual communications degree programs. For all students in the theatre program, any grade below "B" in any course will result in termination from the degree program. Students in all programs in the Department of Music must not have more than six hours or 20 percent of semester hours attempted whichever is greater with a grade of "C." For all other degree programs in the School of the Arts, no grade below "B" is acceptable for any course within the student's major department, and a grade below "B" in a course in the student's major department will result in termination from the degree program.
- All students must complete the culminating project (dissertation, thesis, final
 examination, creative project, recital, etc.) as outlined in departmental
 guidelines. The thesis, or other written documentation related to the
 culminating project, must be done in a form that can be retained by the
 university and in accordance with departmental guidelines. Students
 preparing a thesis must use the guidelines set forth in the Preparation of
 Thesis, available in departmental offices or the Office of Graduate Studies,
 School of the Arts.

Residency requirements for graduate study

Candidates for the master of fine arts degree in the fine arts and theatre must complete a minimum of one-third of their degree program semester-hour credits within one calendar year.

Candidates for all master's degrees in the School of the Arts have five years plus two possible extensions of one year each to complete all degree requirements. The above limitations apply to both full-time and part-time students. A petition for an extension is initiated with the academic or thesis adviser.

Media, Art, and Text, Doctor of Philosophy (Ph.D.)

Graduate program director

Eric G. Garberson, Ph.D. Associate professor, Department of Art History eggarberson@vcu.edu (804) 828-7295

Additional contact

Thom Didato Graduate programs adviser, Department of English tndidato@vcu.edu (804) 828-1329

Program website: matx.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Media, Art, and Text, Doctor of Philosophy (Ph.D.)			
Degree: Ph.D.	Semester(s) of entry: Fall	Deadline dates: Jan 15	Test requirements: GRE-General

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission.

- Applicants must hold a master's degree (M.A., M.F.A., M.S.) in a relevant field.
- Send the following, in the formats indicated, by email to the graduate programs adviser. Note: Materials submitted in any other way, as specified below (on paper, disk, etc.) will be discarded without review.
 - a. Writing sample demonstrating the ability to write clearly, analyze effectively and conduct original research in advanced doctoral-level seminars. This may be a master's thesis, a graduate-level seminar paper or a published essay. Submit as a PDF by email.
 - b. Statement of purpose describing the applicant's interest, motivation and goals in pursuing this degree. The statement should specifically address the importance of interdisciplinarity to the applicant's academic goals, and it should also offer evidence of preparation for the study of media, art, and text. The applicant should indicate the specific area of study and research to be pursued at VCU and identify faculty who might potentially direct dissertation research. Submit as a PDF by email. Note: This is a required separate submission of the same essay included in the online application.
 - c. Academic curriculum vitae or professional resume listing all colleges and universities attended and degrees earned, all professional and academic positions held, all publications and/or exhibitions, technical skills, and any other relevant information. Include URLs for personal and/or professional websites. Submit as PDF by email.
 - d. Letters of recommendation from three present or former instructors or other individuals qualified to evaluate the applicant's ability to engage in interdisciplinary study at the doctoral level. Have recommenders submit letters as PDFs directly to Thom Didato using only academic or professional email accounts.
- 5. Applicants who wish to pursue creative work at VCU must also submit a portfolio. Those with an M.F.A. who do not wish to continue creative work should consult with the MATX director about this requirement. Materials submitted should demonstrate excellence in studio or professional practice and the potential to do graduate-level work in media, art, and text. Portfolios will be reviewed by the MATX admissions committee as well as relevant faculty in the School of the Arts and the Richard T. Robertson School of Media and Culture. Please observe the following guidelines:
 - a. Those working in 2-D or 3-D mediums should provide 20 images of representative work arranged chronologically, beginning with the most recent.
 - Those working in sound and time-based media, as well as those in the performing arts, should provide clips totaling no more than 10 minutes.
 - c. Those working across media may submit a combination of the above.
 - d. The portfolio should be accompanied by title, date, media and dimensions of the work, as well as a brief statement or other information that will help the admissions committee in evaluating the work.

Small files illustrating 2-D or 3-D work may be submitted as JPEGs or PDFs via email. Sound or video files should be posted to Vimeo or Sound Cloud with a functioning link submitted by email. Portfolio materials may also be posted to a personal or professional website and the link submitted by email.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

VCU's interdisciplinary doctoral program in media, art, and text is a joint endeavor of the Department of English, the School of the Arts and the Richard T. Robertson School of Media and Culture. The program prepares students primarily to teach at the college or university level, although some pursue careers in related media fields. MATX emphasizes the historical and theoretical foundations essential to the scholarly study of media, both old and new, broadly defined. It provides an intellectually stimulating environment that encourages students to work both collaboratively and independently, as well as across and between disciplines and media. Students maintain a base in their primary area of research, which is usually but not always the field in which they have done prior graduate work.

Student learning outcomes

- Develop advanced communication skills in writing, speaking and the use of multimedia
- Demonstrate broad knowledge of history and theory as the foundation for interdisciplinary work in a specialized facet of media, art, and/or text
- Develop competence in interdisciplinary and disciplinary research methods and responsible conduct of research
- 4. Develop specialized knowledge in relevant fields to support dissertation and subsequent research
- Demonstrate the ability to conduct independent research and produce new, specialized knowledge within the broad parameters of media, art, and text
- 6. Develop a strong basis for ongoing professional practice

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research.

1. Credit hour requirements: Students in the MATX program are required to earn a minimum of 42 graduate-level credit hours beyond the master's. At least one-half of the credit hours presented for graduation must be at the 600 level or higher. The 42-hour curriculum comprises 36 hours of course work and a minimum of six hours of dissertation research. Course work includes a core of four required courses taken during the first two semesters by all incoming students. Three doctoral seminars provide a shared historical and theoretical foundation for the study of media, art, and text, while a workshop offers the opportunity to develop and expand professional and/or creative skills relevant to the student's career goals and research focus. In addition, all students will take a research methods course in a field relevant to their anticipated area of dissertation research. Beyond the core, students select 21 hours of elective credit hours from course offerings in disciplines relevant to

their research interests and career goals. The program offers a topics seminar focused on the history, theory or practice of media, art, and text. Independent study and internships are also available as electives. While enrollment in courses with the MATX prefix is guaranteed to matriculated MATX students, enrollment in other graduate courses is subject to the conditions established by individual units. Together the core and the electives support the interdisciplinary work of the dissertation, which is an original scholarly examination of some aspect of media, art, and/or text. It may include work in media other than text. It is supervised by a committee consisting of four or five members drawn from disciplines relevant to the research topic.

- 2. Grade requirements: To graduate, degree applicants must achieve an overall grade point average of 3.0 (B) on a 4.0 scale with a grade of C in no more than two courses. The GPA for graduation will be based on all graduate courses attempted after acceptance into the program.
- Requirements for admission to candidacy: Before beginning formal
 dissertation research, students must complete all 36 hours of required course
 work, both stages of the e-portfolio and the requirements described below.
 Upon completion of these, the student will apply for degree candidacy.
- 4. Dissertation committee: The dissertation committee consists of the director (who must hold a Ph.D.) and three or four additional members whose scholarly knowledge and interests are relevant to the project. The committee must have at least one member from each of the sponsoring units (Department of English, School of the Arts, Richard T. Robertson School of Media and Culture). All must be members of VCU's graduate faculty. Appropriate faculty from outside VCU may serve on committees (but not as director) with the approval of the MATX director and the graduate dean. It is the student's responsibility to assemble the committee, in consultation with the dissertation director. Committees will not be appointed by the program.
- 5. E-portfolio: Work on the e-portfolio will begin in MATX 604 in the spring of the first year. There are no technical specifications, and content will include, but is not limited to, work done in the first two years in the program. It will take the form of a website and must demonstrate the technical skills (Web design, audio, video, etc.) relevant to the student's work on the dissertation and the career sought after VCU. Submission is a two-stage process:
 - a. Stage 1 (May of the first year): a three- to five-page design rationale for the portfolio site along with a mock-up or rough structure
 - b. Stage 2 (April of the second year): a finished, live site accompanied by a five-page statement relating it to the student's work inside and outside the program and outlining how it uses media techniques to promote a specific professional and/or creative identity (Note: Each submission is graded pass/fail and may be repeated once. A second failure results in automatic termination from the program.)
- Competency: Candidates must demonstrate competency in a skill or technique relevant to the dissertation research or planned professional career. The dissertation committee approves and administers the competency portion. Graded pass/fail, the test may be repeated once.
- 4. Bibliography exam: Candidates will complete an exam on a reading list of 20 to 30 sources relevant to or supportive of the dissertation topic. The dissertation committee approves and administers the bibliography exam. Graded pass/fail, the test may be repeated once.
- 5. Dissertation prospectus and prospectus defense: The prospectus is a 15- to 20-page document that indicates the significance of the proposed research, gives a short review of relevant literature, states the research question, specifies the proposed methodology and indicates how the project lays the foundation for the anticipated academic or professional career. It also includes a work plan for the completion of research and writing, as well as a complete bibliography. The prospectus is defended orally before the dissertation committee, which may accept, reject or require revisions. The defense may be repeated once.
- 6. Dissertation and dissertation defense: The dissertation is an original, interdisciplinary and scholarly examination of a topic relevant to an aspect of media, art, and/or text. It may include work in media other than text. Given the varied nature of doctoral research, there is no set time frame for completion of a dissertation. It is expected, however, that the dissertation will take about two years after attaining candidacy, but it must be defended within the eight-year time limit for completion of the doctoral degree. The dissertation will be defended orally before the dissertation committee.

Successful defense of the dissertation completes the requirements for the degree.

Curriculum requirements

Courses	Credit hours
MATX 601 Texts and Textuality	3
MATX 602 History of Media, Art, and Text	3
MATX 603 History of Interdisciplinarity and Multimedia	3
MATX 604 Workshop	3
MATX 897 Dissertation Project	6
Choose one methods course from list 1 below	3
Choose elective courses from list 2 below (Elective courses other than	21
those listed may be taken with approval of the MATX program director and the offering department.)	21
Total graduate credit hours required (minimum)	42
List 1: Methods courses	
ARTH 690 Historiography and Methodology in Art History	3
ENGL 605 Introduction to Scholarship in English Studies	3
GSWS 602 Feminist Research Epistemology and Methods	3
MASC 611 Research Methods in Mass Communications	3
List 2: Recommended electives	
ARTH 591 Special Topics in Art History	1-6
ARTH 690 Historiography and Methodology of Art History	3
ARTH 722 Seminar in 19th-century Art	3
ARTH 723 Seminar in 20th-century Art	3
ARTH 741 Seminar in Art and Theory	3
ARTH 742 Seminar in Trans-millenial Art and Ideas	3
ARTH 743 Seminar in Art and Representation	3
ARTH 791 Special Topics in Art History	3
ENGL 560 Studies in British Literature and Culture	3
ENGL 570 Special Topics in American Literature and Culture	3
ENGL 605 Introduction to Scholarship in English Studies	3
ENGL 611 Authors	3
ENGL 614 Cultural Discourses	3
ENGL 620 Intertextuality	3
ENGL 624 Text and Contexts	3
ENGL 627 Genres	3
ENGL 629 Form and Theory of Poetry	3
ENGL 630 Form and Theory of Fiction	3
ENGL 631 Form and Theory of Creative Nonfiction	3
ENGL 661 Themes in Interdisciplinary Studies	3
GSWS 501 Feminist Theory	3
GSWS 602 Feminist Research Epistemology and Methods	3
GSWS 620 Theorizing Sexuality	3
GSWS 624 Gender and Cultural Production	3
GSWS 691 Topics in Gender, Sexuality and Women's Studies	1-3
KINE 591 Topics in Contemporary Media	3
KINE 690 Graduate Seminar	4
KINE 695 Advanced Sound	3
MASC 611 Research Methods in Mass Communications	3
MASC 645 Visual Journalism	3
MASC 684 Multiplatform Storytelling	3
MASC 688 Converged Media Applications	3
MASC 691 Topics in Mass Communications	1-3
MATX 690 Seminar in Media, Art, and Text	3
MATX 696 Internship	1-3

MATX 791 Directed Study (may be taken for a maximum of 12 credit hours)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

The MATX student handbook is available at matx.vcu.edu/program/handbook.

Department of Art Education

The Department of Art Education supports instruction in art that encourages the construction of meaning. Faculty and students are actively involved with the art world, education and local and global communities through art-based service-learning, visual culture studies, critical thinking, exhibition, assessment, curriuculum, critical theory and emerging digital technologies (virtual and interactive).

The department emphasizes interdisciplinary connections throughout the School of the Arts and the university as a whole. Through their own research and instruction, art teacher candidates engage their students and themselves in traditional and nontraditional forms of inquiry to contribute to the continuing growth and strength of the profession.

Administration

Sara Wilson McKay

Associate Professor and Department Chair www.vcu.edu/arts/arteducation

Art education courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to art education (ARTE) courses.

Art Education, Master of (M.A.E.)

Program accreditation

National Association of Schools of Art and Design National Council for Accreditation of Teacher Education

Graduate program director

Melanie L. Buffington, Ph.D. Associate professor mbuffington@vcu.edu

Program coordinator

Danielle M. Shutt Program coordinator artedgrad@vcu.edu (804) 828-1996

Program website: arts.vcu.edu/arteducation/mae

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Art Education	, Master of (M.A.E.)		
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.A.E.	entry: Fall	Jan 15	GRE required if undergraduate GPA
			is below 3.2; optional
			if 3.2 or higher.

Special requirements:

See the School of the Arts admissions page for the specific directions about the portfolio, letters of reference, etc.

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following requirements:

- Thirty-six undergraduate credit hours of art and art history course work (Students who do not have these credit hours from the undergraduate degree are welcome to take undergraduate courses to earn these credit hours before applying to VCU. These can be taken at any accredited undergraduate institution.)
- An undergraduate degree in art education, studio art, art history or a related field

It is desired, though not required, for students to have some teaching experience before applying.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

Through engagement with theory, research and emerging technologies, the Master of Art Education program prepares art educators to be mindful professionals who are active in the field of art education.

The program offers two specific options:

- One option is for teachers who are already licensed and who wish to deepen their understanding of art education.
- The second is for people who hold baccalaureate degrees and wish to earn a master's degree that may include a teaching license.

The program includes required and elective courses and allows students to pursue an area of interest. All students are expected to work at a high level of independence, be self-motivated, respect peers and instructors and participate in the opportunities that the Department of Art Education and the School of the Arts offer. With the assistance of the adviser, the student determines a viable structure for the content and sequence of a program of graduate study. Such a program can utilize the collective expertise of the art education faculty as well as appropriate community resources. Graduate course work, therefore, could include both oncampus and off-campus involvement.

Opportunities for personal growth through the M.A.E. program also include the rich resources of other graduate departments in the university in the visual and performing arts, education (including supervision, administration and specialty areas), the natural and social sciences and the humanities. Alternative approaches to traditional thesis methods are also encouraged within the program.

Student learning outcomes

- Theoretical foundations: Students will demonstrate an ability to analyze varying points of view regarding art education theories.
- Research competencies: Students will demonstrate the ability to apply research methods and methodologies to write a realistic proposal.
- Skills with and knowledge of emerging technologies: Students will demonstrate knowledge of emerging technologies for teaching, research or art-making.
- Command of literature and practice in art education: Students will demonstrate historical and current knowledge of theoretical and practical issues in art education.

Degree requirements

In addition to general VCU Graduate School graduation requirements, the M.A.E. program requires a minimum of 36 graduate credit hours, including required art education and approved elective courses.

Licensure

For students who also pursuing teaching licensure, there are additional requirements, including: EDUS 301, ARTE 404, ARTE 550 or SEDP 505, ARTE 501, ARTE 502, and a semester of student teaching. The electives in the following curricular requirements account for some of these courses. The M.A.E. plus licensure requires a minimum of 36 graduate credit hours plus 13-16 of undergraduate credit hours.

Students who wish to be considered for a teaching license are required to complete a series of tests as mandated by the Virginia Department of Education. See arts.vcu.edu/arteducation/mae/testing for additional information.

Written examination

After completing nine credit hours, including ARTE 611, and before completing 18 credit hours, all students are required to submit a written exam. This exam will determine whether a student is approved for degree candidacy and is ready to proceed to the final stages of the degree program. Failure to submit this required exam may result in dismissal from the program. Students who fail the exam will have a second chance the following semester. Students who fail on the second attempt will be dismissed from the program.

Thesis option

A thesis or project option may develop from graduate course work or professional involvement. Projects are those endeavors of thesis proportion that do not fit the traditional thesis format. A thesis or project may be explored by descriptive research, historical research, empirical/statistical research, design of learning

packages, philosophical study, curriculum development, action research or other methodologies if deemed appropriate by the adviser and committee.

Comprehensive exam option

In lieu of the thesis, students complete six credit hours of graduate seminar work (ARTE 600 taken twice with different topics and different faculty members) in the Department of Art Education. In addition, students must successfully pass a written and oral comprehensive examination in the later stages of their course work. The examination will pertain to the course work, to contemporary issues in the field and to students' particular areas of expertise. This option is suggested for students pursuing the track that results in the M.A.E. and simultaneous teaching licensure

Students who do not pass all portions of the comprehensive exam will have one opportunity to retake the exam the following semester. Students who fail the exam on the second attempt will be dismissed from the program and will not be eligible to graduate from the Department of Art Education.

Curriculum requirements

Thesis option

Courses	Credit hours
Core courses	12
ARTE 611 Theory and Literature in Art Education (required first semester)	3
ARTE 665 Curriculum Development and Evaluation	3
ARTE 670 Technology in Art Education	3
ARTE 690 Issues and Methods of Inquiry in Art Education	3
Choose one additional ARTE class from the following list:	3
ARTE 508 Two-dimensional Art Experiences	3
ARTE 509 Three-dimensional Art Experiences	3
ARTE 550 Art for the Exceptional Learner	3
ARTE 600 Seminar: Issues in Art Education	3
ARTE 691 Topics in Art Education	3
ARTE 692 Independent Study in Art Education	3
Approved electives	15
All approved electives must be at the 500 level or higher and approved by the adviser. ARTE 691, ARTE 799, TEDU 672 and TEDU 674 may not count as approved electives.	
Thesis ARTE 799 Thesis	6
Total graduate credit hours required (minimum)	36

Comprehensive exam option

Courses	Credit hours
Core courses	12
ARTE 611 Theory and Literature in Art Education (required first semester)	3
ARTE 665 Curriculum Development and Evaluation	3
ARTE 670 Technology in Art Education	3
ARTE 690 Issues and Methods of Inquiry in Art Education	3
Choose one additional ARTE class from the following list:	3
ARTE 508 Two-dimensional Art Experiences	3
ARTE 509 Three-dimensional Art Experiences	3

ARTE 550 Art for the Exceptional Learner	3
ARTE 600 Seminar: Issues in Art Education	3
ARTE 691 Topics in Art Education	3
ARTE 692 Independent Study in Art Education	3

Approved electives

15

All approved electives must be at the 500 level or higher and approved by the adviser. ARTE 691, ARTE 799, TEDU 672 and TEDU 674 **may not** count as approved electives.

Seminar classes

6

36

ARTE 600 Seminar: Issues in Art Education (taken twice with different topics and different faculty members, after which students are required to take and pass the comprehensive exam)

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of Art History

The Department of Art History offers programs that acquaint students with the humanistic discipline of art historical inquiry. While providing students with the opportunity for a broad education drawing on the liberal arts and humanities, the department also emphasizes a close bond with the studio and performing arts and enjoys a close relationship with the other departments in the School of the Arts.

The department offers a broad-based education in the humanistic discipline of art history at the baccalaureate, master's and doctoral levels.

Overseas studies are available through university-sponsored programs abroad in Europe and Asia. Graduate assistantships and fellowships are available to full-time graduate students.

Administration

Margaret Lindaur

Associate Professor and Interim Department Chair www.vcu.edu/arts/arthistory

Art history courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to art history (ARTH) courses.

Art History, Doctor of Philosophy (Ph.D.) with a concentration in curatorial

Graduate program director

Margaret A. Lindauer, Ph.D.

Associate professor and chair, Department of Art History malindauer@vcu.edu

(804) 828-2784

Program website: arts.vcu.edu/arthistory

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Art History, Doctor of Philosophy (Ph.D.) with a concentration in historical studies

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Art History, Doctor of Philosophy (Ph.D.) with a concentration in curatorial			
Degree: Ph.D.	Semester(s) of entry: Fall only	Deadline dates: Jan 15	Test requirements: GRE
Special requir Writing sample			

Prospective students holding a master's degree in art history or a related field from VCU or any other accredited institution may apply directly to the doctoral program. Prospective students who hold only a bachelor's degree in art history or a related field also may apply directly to the Ph.D. program; if admitted, they select one of the three M.A. curriculum concentrations and complete 27 of the required 30 credit hours for the M.A. degree before beginning Ph.D. course work.

Applicants are encouraged to speak with a prospective dissertation adviser (the full-time faculty member whose research area corresponds to an applicant's interests).

In addition to the general admission requirements of the VCU Graduate School, applicants to the Ph.D. in Art History must meet the following requirements:

- A statement of purpose, 750-1000 words in length, that briefly recounts applicant's academic background, describes an avenue of inquiry that the applicant expects to explore, notes applicant's professional goals beyond graduate study and explains why VCU's Ph.D. in Art History program is suited to applicant's interests
- A research/writing sample that has a clearly articulated thesis statement, identifies and interprets primary and/or secondary sources in support of a well-argued thesis, and offers a coherent, cohesive narrative
- 3. Three letters of recommendation, at least two of which are from faculty members who can assess the applicant's preparation and promise for graduate work (Some applicants may choose to solicit the third letter from a museum professional who has supervised the applicant's professional work in a museum setting.)
- Official transcripts from schools where applicant completed course work applied toward the baccalaureate or master's degree
- 5. An official report of GRE scores

Applications are reviewed by the program's full-time faculty members, who assess an applicant's overall package of materials with particular attention to the statement of interest and writing sample. Applicants are encouraged to correspond with individual faculty members who share their areas of research interests.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Ph.D. in Art History is a research-oriented degree designed to train critical and productive scholars, college and university professors, and curators and museum professionals who are well-grounded in the literature, methodology and major art historical and/or museological problems in their selected areas of study.

All doctoral students establish a program of study that includes a major field of study and a minor field of study shared by a full-time faculty member. Students in the curatorial concentration select museum studies as either the major or minor field of study.

Student learning outcomes

- 1. Students apply critical and analytical concepts, frameworks and methods.
- Students contextualize scholarship in relationship to existing art historical/ museological knowledge, discourse and/or debate.
- Students write effectively for audiences of scholarly and non-specialist readers
- 4. Students speak effectively to scholarly and non-specialist audiences.
- Students demonstrate ability to translate art historical scholarship written in a language or languages relevant to their research.
- Students conduct scholarly inquiry that makes a scholarly professional contribution.

Degree requirements

In addition to general VCU Graduate School graduation requirements, the program of study for students who have an M.A. degree upon applying for the Ph.D. program is determined on a case-by-case basis, to include at least 30 credit hours in the concentration area. Students may also be required to also complete ARTH 690 Historiography and Methodology of Art History, ARTH 694 Art History and Pedagogy and/or selected art history seminars if they have not completed equivalent courses in their master's programs and/or if their degrees were awarded in fields other than art history. Students in the curatorial concentration may also be required to take one or more museum studies course (ARTH 681-684, 691) if their M.A. programs did not include equivalent courses.

Students who matriculate into the concentration in historical studies with only a baccalaureate degree initially complete the requirements in either the concentration in historical studies or the concentration in architectural history in the M.A. program; they then proceed to complete the following 30 credit hours.

Major and minor art historical field of study

Students complete a major and a minor art historical field of study of their choosing. The major area requires three seminars, while the minor requires two seminars. M.A./Ph.D. students may complete some of these courses while at the master's stage.

Language proficiency

Doctoral students must demonstrate competency in two foreign languages relevant to their areas of research and approved by the departmental graduate committee before admission to candidacy. Foreign language competency demonstrated for an M.A. may be applied to this requirement. The Department of Art History administers language exams and offers a course in German for art history.

Admission to candidacy

Doctoral students are admitted to candidacy after demonstrating proficiency in two foreign languages, passing the major and minor field exams administered in ARTH 772 and ARTH 773 and orally defending a dissertation prospectus previously approved by the dissertation adviser. Only after candidacy is granted may a student enroll for dissertation credits.

Dissertation

After admission to candidacy, doctoral students proceed to complete and defend a dissertation. They work under the supervision of the dissertation director, and they are required to maintain continuous enrollment of at least three credit hours per semester (excluding summer) until they have attained six hours of dissertation credit, after which they may enroll for as few as one credit per semester. The dissertation must represent independent research that is devoted to an original question or hypothesis with the appropriate development, analysis and interpretation. Successful defense of the dissertation completes the requirements for the degree. All degree requirements must be completed within eight years of the first semester of enrollment in the doctoral program (either M.A./Ph.D. or Ph.D.).

Curriculum requirements

Credit hours
3
3
3
3
6
9
3

Total graduate credit hours required (minimum)

30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

For more information about the programs of study, go to arts.vcu.edu/arthistory.

Art History, Doctor of Philosophy (Ph.D.) with a concentration in historical studies

Graduate program director

Margaret A. Lindauer, Ph.D. Associate professor and chair, Department of Art History malindauer@vcu.edu (804) 828-2784

Program website: arts.vcu.edu/arthistory

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Art History, Doctor of Philosophy (Ph.D.) with a concentration in curatorial

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Art History, Doctor of Philosophy (Ph.D.) with a concentration in historical studies			
Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE
	Fall only	Jan 15	

Prospective students holding a master's degree in art history or a related field from VCU or any other accredited institution may apply directly to the doctoral program. Prospective students who hold only a bachelor's degree in art history or a related field also may apply directly to the Ph.D. program; if admitted, they select one of the three M.A. curriculum concentrations and complete 27 of the required 30 credit hours for the M.A. degree before beginning Ph.D. course work.

Applicants are encouraged to speak with a prospective dissertation adviser (the full-time faculty member whose research area corresponds to an applicant's interests).

In addition to the general admission requirements of the VCU Graduate School, applicants to the Ph.D. in Art History must meet the following requirements:

- A statement of purpose, 750-1000 words in length, that briefly recounts applicant's academic background, describes an avenue of inquiry that the applicant expects to explore, notes applicant's professional goals beyond graduate study and explains why VCU's Ph.D. in Art History program is suited to applicant's interests
- A research/writing sample that has a clearly articulated thesis statement, identifies and interprets primary and/or secondary sources in support of a well-argued thesis, and offers a coherent, cohesive narrative
- 3. Three letters of recommendation, at least two of which are from faculty members who can assess the applicant's preparation and promise for graduate work (Some applicants may choose to solicit the third letter from a museum professional who has supervised the applicant's professional work in a museum setting.)
- Official transcripts from schools where applicant completed course work applied toward the baccalaureate or master's degree
- 5. An official report of GRE scores

Applications are reviewed by the program's full-time faculty members, who assess an applicant's overall package of materials with particular attention to the statement of interest and writing sample. Applicants are encouraged to correspond with individual faculty members who share their areas of research interests.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The Ph.D. in Art History is a research-oriented degree designed to train critical and productive scholars, college and university professors, and curators and museum professionals who are well-grounded in the literature, methodology and major art historical and/or museological problems in their selected areas of study.

All doctoral students establish a program of study that includes a major field of study and a minor field of study shared by a full-time faculty member. Students in the curatorial concentration select museum studies as either the major or minor field of study.

Student learning outcomes

- 1. Students apply critical and analytical concepts, frameworks and methods.
- Students contextualize scholarship in relationship to existing art historical/ museological knowledge, discourse and/or debate.
- Students write effectively for audiences of scholarly and non-specialist readers
- 4. Students speak effectively to scholarly and non-specialist audiences.
- Students demonstrate ability to translate art historical scholarship written in a language or languages relevant to their research.
- Students conduct scholarly inquiry that makes a scholarly professional contribution.

Degree requirements

In addition to general VCU Graduate School graduation requirements, the program of study for students who have an M.A. degree upon applying for the Ph.D. program is determined on a case-by-case basis, to include at least 30 credit hours in the concentration area. Students may also be required to also complete ARTH 690 Historiography and Methodology of Art History, ARTH 694 Art History and Pedagogy and/or selected art history seminars if they have not completed equivalent courses in their master's programs and/or if their degrees were awarded in fields other than art history. Students in the curatorial concentration may also be required to take one or more museum studies course (ARTH 681-684, 691) if their M.A. programs did not include equivalent courses.

Students who matriculate into the concentration in historical studies with only a baccalaureate degree initially complete the requirements in either the concentration in historical studies or the concentration in architectural history in the M.A. program; they then proceed to complete the following 30 credit hours.

Major and minor art historical field of study

Students complete a major and a minor art historical field of study of their choosing. The major area requires three seminars, while the minor requires two seminars. M.A./Ph.D. students may complete some of these courses while at the master's stage.

Language proficiency

Doctoral students must demonstrate competency in two foreign languages relevant to their areas of research and approved by the departmental graduate committee before admission to candidacy. Foreign language competency demonstrated for an M.A. may be applied to this requirement. The Department of Art History administers language exams and offers a course in German for art history.

Admission to candidacy

Doctoral students are admitted to candidacy after demonstrating proficiency in two foreign languages, passing the major and minor field exams administered in ARTH 772 and ARTH 773 and orally defending a dissertation prospectus previously approved by the dissertation adviser. Only after candidacy is granted may a student enroll for dissertation credits.

Dissertation

After admission to candidacy, doctoral students proceed to complete and defend a dissertation. They work under the supervision of the dissertation director, and they are required to maintain continuous enrollment of at least three credit hours per semester (excluding summer) until they have attained six hours of dissertation credit, after which they may enroll for as few as one credit per semester. The dissertation must represent independent research that is devoted to an original question or hypothesis with the appropriate development, analysis and interpretation. Successful defense of the dissertation completes the requirements for the degree. All degree requirements must be completed within eight years of the first semester of enrollment in the doctoral program (either M.A./Ph.D. or Ph.D.).

Curriculum requirements

Courses	Credit hours
ARTH 772 Major Field Exam	3
ARTH 773 Minor Field Exam	3
ARTH 774 Dissertation Prospectus	3
ARTH 899 Dissertation	6
Art history seminars (selected from ARTH 591, 721-729, 741-749, 791, 797)	15

Total graduate credit hours required (minimum) 30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

For more information about the programs of study, go to arts.vcu.edu/arthistory.

Art History, Master of Arts (M.A.) with a concentration in architectural history

Graduate program director

Margaret A. Lindauer, Ph.D. Associate professor and chair, Department of Art History malindauer@vcu.edu (804) 828-2784

Program website: arts.vcu.edu/arthistory

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Art History, Master of Arts (M.A.) with a concentration in historical studies Art History, Master of Arts (M.A.) with a concentration in museum studies

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.A.	entry:		GRE
	Fall only	Jan 15	

Students with a bachelor's degree in art history or in a related field (e.g., history, anthropology, literary studies, religious studies or philosophy) are invited to apply to VCU Department of Art History graduate programs. Applicants who have completed at least 18 undergraduate semester credit hours in art history are preferred.

In addition to the general admission requirements of the VCU Graduate School, applicants to the Master of Arts in Art History must meet the following requirements:

- A statement of purpose, 750-1000 words in length, that briefly recounts applicant's academic background, describes an avenue of inquiry that the applicant expects to explore, notes applicant's professional goals beyond graduate study and explains why VCU art history is suited to applicant's interests
- A research/writing sample that has a clearly articulated thesis statement, identifies and interprets primary and/or secondary sources in support of a well-argued thesis, and offers a coherent, cohesive narrative
- 3. Three letters of recommendation, at least two of which are from faculty members who can assess the applicant's preparation and promise for graduate work (Some applicants may choose to solicit the third letter from a museum professional who has supervised the applicant's professional work in a museum setting.)
- Official transcripts from schools where applicant completed course work applied toward the baccalaureate degree
- 5. An official report of GRE scores

Applications are reviewed by full-time faculty members who assess an applicant's overall package of materials, with particular attention to the statement of interest and writing sample.

See arts.vcu.edu/admissions/how-to-apply/graduate for specific information regarding the online application process.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The mission of the graduate program in art history is to equip students with requisite knowledge, skills and theoretical foundation to embark on successful careers in academia and/or museums.

The M.A. curriculum concentrations provide students with a general background in the research methods and teachings of art history in preparation for careers in museums, collections care or arts organizations. It also prepares students for the more rigorous research demands of the Ph.D., which is the required degree for academic and curatorial careers.

Student learning outcomes

- 1. Students apply critical and analytical concepts, frameworks and methods.
- Students contextualize scholarship in relationship to existing art historical/ museological knowledge, discourse and/or debate.
- Students write effectively for audiences of scholarly and non-specialist readers.
- 4. Students speak effectively to scholarly and non-specialist audiences.
- Students demonstrate ability to translate art historical scholarship written in a language or languages relevant to their research.
- Students conduct scholarly inquiry that makes a scholarly professional contribution.

Degree requirements

In addition to general VCU Graduate School graduation requirements students must complete 30 credit hours of course work, variously distributed according to the curriculum concentration.

Curriculum requirements

Courses	hours
ARTH 621 Historical Preservation and Architectural History	3
ARTH 622 Studies in Architectural History	9
ARTH 690 Historiography and Methodology of Art History	3
ARTH 694 Art History and Pedagogy	3
ARTH 695 Writing Seminar I	3
ARTH 771 Writing Seminar II	3
Two art history seminars with a period/region focus (ARTH 720-729)	6

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Art History, Master of Arts (M.A.) with a concentration in historical studies

Graduate program director

Margaret A. Lindauer, Ph.D. Associate professor and chair, Department of Art History malindauer@vcu.edu (804) 828-2784

Program website: arts.vcu.edu/arthistory

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Art History, Master of Arts (M.A.) with a concentration in architectural history Art History, Master of Arts (M.A.) with a concentration in museum studies

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree: Semester(s) of Deadline dates: Test requirements: M.A. entry: GRE Fall only Jan 15	Art History, Master of Arts (M.A.) with a concentration in historical studies			
		entry:		Test requirements: GRE

Students with a bachelor's degree in art history or in a related field (e.g., history, anthropology, literary studies, religious studies or philosophy) are invited to apply to VCU Department of Art History graduate programs. Applicants who have completed at least 18 undergraduate semester credit hours in art history are preferred.

In addition to the general admission requirements of the VCU Graduate School, applicants to the Master of Arts in Art History must meet the following requirements:

 A statement of purpose, 750-1000 words in length, that briefly recounts applicant's academic background, describes an avenue of inquiry that the applicant expects to explore, notes applicant's professional goals beyond

- graduate study and explains why VCU art history is suited to applicant's interests
- A research/writing sample that has a clearly articulated thesis statement, identifies and interprets primary and/or secondary sources in support of a well-argued thesis, and offers a coherent, cohesive narrative
- 3. Three letters of recommendation, at least two of which are from faculty members who can assess the applicant's preparation and promise for graduate work (Some applicants may choose to solicit the third letter from a museum professional who has supervised the applicant's professional work in a museum setting.)
- 4. Official transcripts from schools where applicant completed course work applied toward the baccalaureate degree
- 5. An official report of GRE scores

Applications are reviewed by full-time faculty members who assess an applicant's overall package of materials, with particular attention to the statement of interest and writing sample.

See arts.vcu.edu/admissions/how-to-apply/graduate for specific information regarding the online application process.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The mission of the graduate program in art history is to equip students with requisite knowledge, skills and theoretical foundation to embark on successful careers in academia and/or museums.

The M.A. curriculum concentrations provide students with a general background in the research methods and teachings of art history in preparation for careers in museums, collections care or arts organizations. It also prepares students for the more rigorous research demands of the Ph.D., which is the required degree for academic and curatorial careers.

Student learning outcomes

- 1. Students apply critical and analytical concepts, frameworks and methods.
- Students contextualize scholarship in relationship to existing art historical/ museological knowledge, discourse and/or debate.
- Students write effectively for audiences of scholarly and non-specialist readers.
- 4. Students speak effectively to scholarly and non-specialist audiences.
- Students demonstrate ability to translate art historical scholarship written in a language or languages relevant to their research.
- Students conduct scholarly inquiry that makes a scholarly professional contribution.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must complete 30 credit hours of course work, variously distributed according to curriculum concentration.

Curriculum requirements

Courses	Credit hours
ARTH 690 Historiography and Methodology of Art History	3
ARTH 694 Art History and Pedagogy	3
ARTH 695 Writing Seminar I	3
ARTH 771 Writing Seminar II	3
Six art history seminars*	18

 $\begin{tabular}{ll} \textbf{Total graduate credit hours required (minimum)} & \textbf{30} \\ * At least one from among ARTH 721-729 and at least one from among ARTH \\ \hline \end{tabular}$

* At least one from among ARTH 721-729 and at least one from among ARTH 741-749. The remaining four art history seminar courses may be chosen from among the aforementioned courses and/or ARTH 591, 791 and 797, as well as no more than one museum studies class (ARTH 681-684, 691 or 693).

Students must earn a minimum grade of B in ARTH 690 Historiography and Methodology of Art History in order to enroll in subsequent graduate-level art history courses. Students must also demonstrate an ability to translate art historical scholarship published in a language relevant to their research interests and approved by the departmental graduate committee. The Department of Art History administers language exams, and it offers a course in German for art history.

For more information about the programs of study, go to arts.vcu.edu/arthistory.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Art History, Master of Arts (M.A.) with a concentration in museum studies

Graduate program director

Margaret A. Lindauer, Ph.D.

Associate professor and chair, Department of Art History

malindauer@vcu.edu

(804) 828-2784

Program website: arts.vcu.edu/arthistory

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Art History, Master of Arts (M.A.) with a concentration in architectural history Art History, Master of Arts (M.A.) with a concentration in historical studies

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Art History, Master of Arts (M.A.) with a concentration in museum studies			useum studies
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.A.	entry:		GRE
	Fall only	Jan 15	
Special require Writing sample			

Students with a bachelor's degree in art history or in a related field (e.g., history, anthropology, literary studies, religious studies or philosophy) are invited to apply to VCU Department of Art History graduate programs. Applicants who have completed at least 18 undergraduate semester credit hours in art history are preferred.

In addition to the general admission requirements of the VCU Graduate School, applicants to the Master of Arts in Art History must meet the following requirements:

- A statement of purpose, 750-1000 words in length, that briefly recounts applicant's academic background, describes an avenue of inquiry that the applicant expects to explore, notes applicant's professional goals beyond graduate study and explains why VCU art history is suited to applicant's interests
- A research/writing sample that has a clearly articulated thesis statement, identifies and interprets primary and/or secondary sources in support of a well-argued thesis, and offers a coherent, cohesive narrative
- Three letters of recommendation, at least two of which are from faculty
 members who can assess the applicant's preparation and promise for graduate
 work (Some applicants may choose to solicit the third letter from a museum
 professional who has supervised the applicant's professional work in a
 museum setting.)
- Official transcripts from schools where applicant completed course work applied toward the baccalaureate degree
- 5. An official report of GRE scores

Applications are reviewed by full-time faculty members who assess an applicant's overall package of materials, with particular attention to the statement of interest and writing sample.

See arts.vcu.edu/admissions/how-to-apply/graduate for specific information regarding the online application process.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The mission of the graduate program in art history is to equip students with requisite knowledge, skills and theoretical foundation to embark on successful careers in academia and/or museums. The M.A. curriculum concentrations provide students with a general background in the research methods and teachings of art history in preparation for careers in museums, collections care or arts organizations. It also prepares students for the more rigorous research demands of the Ph.D., which is the required degree for academic and curatorial careers.

Student learning outcomes

- 1. Students apply critical and analytical concepts, frameworks and methods.
- Students contextualize scholarship in relationship to existing art historical/ museological knowledge, discourse and/or debate.
- Students write effectively for audiences of scholarly and non-specialist readers
- 4. Students speak effectively to scholarly and non-specialist audiences.
- Students demonstrate ability to translate art historical scholarship written in a language or languages relevant to their research.
- Students conduct scholarly inquiry that makes a scholarly professional contribution.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must complete 30 credit hours of course work, variously distributed according to curriculum concentration.

Curriculum requirements

Courses	Credit hours
ARTH 690 Historiography and Methodology of Art History	3
ARTH 693 Graduate Museum Internship	3
ARTH 694 Art History and Pedagogy	3
ARTH 695 Writing Seminar I	3
ARTH 771 Writing Seminar II	3
Three art history seminars (selected from ARTH 720-729, 740-749, 791, 797)	9
Two museum studies seminars (selected from ARTH 681-684, 691)	6

Total graduate credit hours required (minimum) 30

Students must earn a minimum grade of B in ARTH 690 Historiography and Methodology of Art History in order to enroll in subsequent graduate-level art history courses. Students must also demonstrate an ability to translate art historical scholarship published in a language relevant to their research interests and approved by the departmental graduate committee. The Department of Art History administers language exams and it offers a course in German for art history.

For more information about the programs of study, go to arts.vcu.edu/arthistory.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of Communication Arts

Robert Meganck

Professor and Department Chair www.vcu.edu/arts/communicationarts

Communication arts is the study and exploration of the qualities, disciplines and technologies that enable us to create and communicate with insight and vision. Our studies are firmly rooted in understanding the power of image and art to communicate

Communication arts includes studies in:

- Drawing, which is the fundamental means to articulate ideas; it is elemental
 to everything we do.
- Illustration, a discipline with a rich history in drawing, painting, design and print media, which is being expanded by powerful new tools and technologies.
- Visual studies, which encompasses studio, historical, conceptual and theoretical issues that include analysis and exploration of image, media, content and context.

Study leads to a Bachelor of Fine Arts and students may choose an emphasis in either communication arts or scientific and preparatory medical illustration.

Communication arts courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to communication arts (COAR) courses.

Department of Craft and Material Studies

The Department of Craft and Material Studies is housed in the new Fine Arts Building that includes private and semi-private graduate studios. These new facilities provide a safe and excellent physical environment in which to work. Students have access to well-equipped studios in each of the five media areas along with a computer lab and wood shop. The building also houses the facilities for sculpture, painting and printmaking, and kinetic imaging. Interaction among departments is encouraged.

In addition to the Bachelor of Fine Arts in Craft and Material Studies, the department offers graduate course work leading to the Master of Fine Arts in Fine Arts degree in five disciplines: ceramics, fiber, furniture design, glassworking and jewelry/metalworking.

The M.F.A. is the terminal degree in the studio areas and is a requirement for most university teaching positions. Every effort is made to assist students in gaining valuable teaching experience while they are in the program. The department aids the students financially through a variety of scholarships and graduate assistantships. Opportunities exist for qualified students to teach courses during the academic year and in summer school.

Administration

Sonva Clark

Professor and Department Chair www.vcu.edu/arts/craft

Craft and material studies courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to craft and material studies (CRAF) courses.

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in ceramics

Program accreditation

National Association of Schools of Art and Design

Graduate program director

Sonya Y.S. Clark

Chair, Department of Craft and Material Studies syclark@ycu.edu

(804) 828-1750

Program website: arts.vcu.edu/craft

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in fibers Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in furniture design Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in glassworking Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in jewelry/ metalworking

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in kinetic imaging Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in painting Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in photography and

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in printmaking Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in sculpture

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.F.A.	entry:		None
	Fall	Jan 15	

In addition to the general admission requirements of the VCU Graduate School and the School of the Arts admission requirements, applicants in the visual arts must have completed a minimum of 36 credit hours in art at the undergraduate level. Applicants should also present:

- Curriculum vitae/resume: If applicant has a website, please include a link in CV/resume.
- Statement of purpose: Please submit with university application and upload
- References: Provide the names and contact information for three references from professional associates such as instructors, supervisors or colleagues who can comment on the applicant's ability to succeed in a graduate program. Letters of recommendation will be submitted electronically by recommenders.
- Portfolio: Provide 20 still and/or moving images. Present work in reverse chronological order with the newest work first and the oldest work last. Images are reviewed one at a time. Please include any additional information to help reviewers understand the image.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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> General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The program comprises a community of makers/artists who advance the conceptual, historical, technical and haptic aspects of clay, fiber, glass, metal and wood. The program promotes an artistic practice rooted in the values of craft. Students will investigate craft's inherent relationship to the world with fearless

Student learning outcomes

- 1. Students will demonstrate an understanding and proficiency in craft, design
- Students will demonstrate and understand the symbolic relationship and potential impact of contemporary craft and art on culture. Students will be able to contextualize individual artistic research within art history and contemporary art.
- Students will be able to use knowledge gained from critique to improve creative work. The students will demonstrate proficiency in critiquing peers' creative work. The students will be able to demonstrate critical thinking about their own work and that of others.
- Students will demonstrate proficiency in basic, intermediate and advanced craft techniques within their specific field media.
- Students will demonstrate an understanding of the career demands of a contemporary craft artist and how to pursue a career through multiple paths.
- Students will be able to develop comprehensive and unique portfolios. Students will be able to develop and articulate their own ideas, conceptual and formal, via conversation, presentation skills and writing.
- Students will develop an understanding of their ability to interpret their individual motivation in their artwork and studio practice. Students will be able to maintain a self-motivated and self-directed mode of research/studio practice.

Degree requirements

In addition to general VCU Graduate School graduation requirements, the M.F.A. program requires 60 credit hours, which students usually complete in two years of full-time study. The majority of credit hours are taken in the student's area of specialization. Graduate seminars, art history courses and other studio/academic electives round out the graduate student's individualized program. Studio visits and critiques with visiting artists are an important aspect of the program.

Within the studio concentration, emphasis is placed on self-motivation, individual investigation and the development of professional attitudes and skills. Graduate students are expected to demonstrate a serious commitment to their work and to develop mature ideas and forms of expression. Admission to the graduate program is highly selective and competitive.

Graduate students interact formally and informally with the faculty in their areas and with other faculty members in the School of the Arts. Each graduate student works closely with a faculty committee that meets twice a semester for critiques and discussions. At the end of the first year, students present their work to their committee and departmental faculty in a candidacy review. At the successful completion of the 60 credit hours, a thesis exhibition is mounted at the university's Anderson Gallery or at an alternative venue. A written thesis is also required.

Curriculum requirements

Courses	Credit hours
CRAF 641 Graduate Studies in Clay	30
CRAF 681 Candidacy Research	6
CRAF 682 Thesis Research	6
CRAF 690 Graduate Seminar	9
Graduate art history elective*	3
Graduate open electives**	6

Total graduate credit hours required (minimum)

60

Suggested course sequence

Suggested course sequence	
Courses	Credit hours
First semester	
CRAF 641 Graduate Studies in Clay	9
CRAF 681 Candidacy Research	3
CRAF 690 Graduate Seminar	3
Second semester	
CRAF 641 Graduate Studies in Clay	6
CRAF 681 Candidacy Research	3
CRAF 690 Graduate Seminar	3
Graduate open elective**	3
Third semester	
CRAF 641 Graduate Studies in Clay	6
CRAF 682 Thesis Research	3
CRAF 690 Graduate Seminar	3
Graduate art history elective*	3
Fourth semester	
CRAF 641 Graduate Studies in Clay	9
CRAF 682 Thesis Research	3
Graduate open elective**	3
Total graduate credit hours required (minimum)	60

^{*}Art history: ARTH 500-799

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

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Graduation requirements



Other information

Student handbook: arts.vcu.edu/craft/files/2012/07/ Craft MaterialStudiesGraduateHandbook.pdf

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in fibers

Program accreditation

National Association of Schools of Art and Design

Graduate program director

Sonya Y.S. Clark

Chair, Department of Craft and Material Studies syclark@vcu.edu

(804) 828-1750

Program website: arts.vcu.edu/craft

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in ceramics

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in furniture design

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in glassworking Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in jewelry/

netalworking

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in kinetic imaging

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in painting

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in photography and film

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in printmaking Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in sculpture

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree: S			
M.F.A. e	semester(s) of ntry:	Deadline dates:	Test requirements: None
	ntry: Fall	Jan 15	None

In addition to the general admission requirements of the VCU Graduate School and the School of the Arts admission requirements, applicants in the visual arts must have completed a minimum of 36 credit hours in art at the undergraduate level. Applicants should also present:

- Curriculum vitae/resume: If applicant has a website, please include a link in CV/resume
- Statement of purpose: Please submit with university application and upload as PDF.

^{**} Graduate open electives: any 500-level or higher graduate course (Permission of instructor or program may apply.)

- References: Provide the names and contact information for three references
 from professional associates such as instructors, supervisors or colleagues
 who can comment on the applicant's ability to succeed in a graduate program.
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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

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Student learning outcomes

- Students will demonstrate an understanding and proficiency in craft, design and art.
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Degree requirements

In addition to general VCU Graduate School graduation requirements, the M.F.A. program requires 60 credit hours, which students usually complete in two years of

full-time study. The majority of credit hours are taken in the student's area of specialization. Graduate seminars, art history courses and other studio/academic electives round out the graduate student's individualized program. Studio visits and critiques with visiting artists are an important aspect of the program.

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Curriculum requirements

Courses	Credit hours
CRAF 661 Graduate Studies in Fiber	30
CRAF 681 Candidacy Research	6
CRAF 682 Thesis Research	6
CRAF 690 Graduate Seminar	9
Graduate art history elective*	3
Graduate open electives**	6

Total graduate credit hours required (minimum) 60

Suggested course sequence

Courses	Credit hou
First semester	
CRAF 661 Graduate Studies in Fiber	9
CRAF 681 Candidacy Research	3
CRAF 690 Graduate Seminar	3
Second semester	
CRAF 661 Graduate Studies in Fiber	6
CRAF 681 Candidacy Research	3
CRAF 690 Graduate Seminar	3
Graduate open elective**	3
Third semester	
CRAF 661 Graduate Studies in Fiber	6
CRAF 682 Thesis Research	3
CRAF 690 Graduate Seminar	3
Graduate art history elective*	3
Fourth semester	
CRAF 661 Graduate Studies in Fiber	9
CRAF 682 Thesis Research	3
Graduate open elective**	3

^{*}Art history: ARTH 500-799

60

Total graduate credit hours required (minimum)

Degree candidacy requirements

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formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduation requirements



Other information

Student handbook: arts.vcu.edu/craft/files/2012/07/ Craft MaterialStudiesGraduateHandbook.pdf

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in furniture design

Program accreditation

National Association of Schools of Art and Design

Graduate program director

Sonya Y.S. Clark Chair, Department of Craft a

Chair, Department of Craft and Material Studies syclark@vcu.edu

(804) 828-1750

Program website: arts.vcu.edu/craft

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in ceramics

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in fibers

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in glassworking

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in jewelry/metalworking

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in kinetic imaging Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in painting

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in photography and film

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in printmaking Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in sculpture

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements
M.F.A.	entry:		None
	Fall	Jan 15	

In addition to the general admission requirements of the VCU Graduate School and the School of the Arts admission requirements, applicants in the visual arts

must have completed a minimum of 36 credit hours in art at the undergraduate level. Applicants should also present:

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

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Student learning outcomes

- Students will demonstrate an understanding and proficiency in craft, design and art
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Curriculum requirements

Courses	Credit hours
CRAF 621 Graduate Studies in Wood	30
CRAF 681 Candidacy Research	6
CRAF 682 Thesis Research	6
CRAF 690 Graduate Seminar	9
Graduate art history elective*	3
Graduate open electives**	6
Total graduate credit hours required (minimum)	60

Total graduate credit hours required (minimum)

Suggested course sequence	
Courses	Credit hours
First semester	
CRAF 621 Graduate Studies in Wood	9
CRAF 681 Candidacy Research	3
CRAF 690 Graduate Seminar	3
Second semester	
CRAF 621 Graduate Studies in Wood	6
CRAF 681 Candidacy Research	3
CRAF 690 Graduate Seminar	3
Graduate open elective**	3
Third semester	
CRAF 621 Graduate Studies in Wood	6
CRAF 682 Thesis Research	3
CRAF 690 Graduate Seminar	3
Graduate art history elective*	3
Fourth semester	
CRAF 621 Graduate Studies in Wood	9
CRAF 682 Thesis Research	3
Graduate open elective**	3
Total graduate credit hours required (minimum)	60

- *Art history: ARTH 500-799
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Graduation requirements



Other information

Student handbook: arts.vcu.edu/craft/files/2012/07/ Craft MaterialStudiesGraduateHandbook.pdf

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in glassworking

Program accreditation

National Association of Schools of Art and Design

Graduate program director

Sonya Y.S. Clark

Chair, Department of Craft and Material Studies

syclark@ycu.edu

(804) 828-1750

Program website: arts.vcu.edu/craft

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Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in fibers

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Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in printmaking Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in sculpture

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.F.A.	entry:		None
	Fall	Jan 15	

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General academic regulations for all graduate students in all graduate programs at VCU



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Curriculum requirements

Courses	Credit hours
CRAF 651 Graduate Studies in Glass	30
CRAF 681 Candidacy Research	6
CRAF 682 Thesis Research	6
CRAF 690 Graduate Seminar	9
Graduate art history elective*	3
Graduate open electives**	6

Total graduate credit hours required (minimum) 60

Suggested course sequence

Courses	Credit hours
First semester	
CRAF 651 Graduate Studies in Glass	9
CRAF 681 Candidacy Research	3
CRAF 690 Graduate Seminar	3
Second semester	
CRAF 651 Graduate Studies in Glass	6
CRAF 681 Candidacy Research	3
CRAF 690 Graduate Seminar	3
Graduate open elective**	3
Third semester	
CRAF 651 Graduate Studies in Glass	6
CRAF 682 Thesis Research	3
CRAF 690 Graduate Seminar	3

Graduate art history elective*	3	
Fourth semester		
CRAF 651 Graduate Studies in Glass	9	
CRAF 682 Thesis Research	3	
Graduate open elective**	3	
Total graduate credit hours required (minimum)		60

*Art history: ARTH 500-799

Degree candidacy requirements

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Graduation requirements



Other information

Student handbook: arts.vcu.edu/craft/files/2012/07/ Craft_MaterialStudiesGraduateHandbook.pdf

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in jewelry/metalworking

Program accreditation

National Association of Schools of Art and Design

Graduate program director

Sonya Y.S. Clark

Chair, Department of Craft and Material Studies syclark@vcu.edu

(904) 929 1750

(804) 828-1750

Program website: arts.vcu.edu/craft

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Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in ceramics Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in fibers Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in furniture design Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in glassworking

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in kinetic imaging Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in painting Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in photography and film

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in printmaking Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in sculpture

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in jewelry/ metalworking Degree: Semester(s) of Deadline dates: Test requirements: M.F.A. entry: None Fall Jan 15 Special requirements: See arts.vcu.edu/admissions/how-to-apply for details on the application process.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The program comprises a community of makers/artists who advance the conceptual, historical, technical and haptic aspects of clay, fiber, glass, metal and wood. The program promotes an artistic practice rooted in the values of craft. Students will investigate craft's inherent relationship to the world with fearless innovation.

^{**} Graduate open electives: any 500-level or higher graduate course (Permission of instructor or program may apply.)

Student learning outcomes

- Students will demonstrate an understanding and proficiency in craft, design and art.
- Students will demonstrate and understand the symbolic relationship and potential impact of contemporary craft and art on culture. Students will be able to contextualize individual artistic research within art history and contemporary art.
- 3. Students will be able to use knowledge gained from critique to improve creative work. The students will demonstrate proficiency in critiquing peers' creative work. The students will be able to demonstrate critical thinking about their own work and that of others.
- 4. Students will demonstrate proficiency in basic, intermediate and advanced craft techniques within their specific field media.
- Students will demonstrate an understanding of the career demands of a contemporary craft artist and how to pursue a career through multiple paths.
- Students will be able to develop comprehensive and unique portfolios.
 Students will be able to develop and articulate their own ideas, conceptual and formal, via conversation, presentation skills and writing.
- Students will develop an understanding of their ability to interpret their individual motivation in their artwork and studio practice. Students will be able to maintain a self-motivated and self-directed mode of research/studio practice.

Degree requirements

In addition to general VCU Graduate School graduation requirements, the M.F.A. program requires 60 credit hours, which students usually complete in two years of full-time study. The majority of credit hours are taken in the student's area of specialization. Graduate seminars, art history courses and other studio/academic electives round out the graduate student's individualized program. Studio visits and critiques with visiting artists are an important aspect of the program.

Within the studio concentration, emphasis is placed on self-motivation, individual investigation and the development of professional attitudes and skills. Graduate students are expected to demonstrate a serious commitment to their work and to develop mature ideas and forms of expression. Admission to the graduate program is highly selective and competitive.

Graduate students interact formally and informally with the faculty in their areas and with other faculty members in the School of the Arts. Each graduate student works closely with a faculty committee that meets twice a semester for critiques and discussions. At the end of the first year, students present their work to their committee and departmental faculty in a candidacy review. At the successful completion of the 60 credit hours, a thesis exhibition is mounted at the university's Anderson Gallery or at an alternative venue. A written thesis is also required.

Curriculum requirements

Courses	Credit hours
CRAF 601 Graduate Studies in Metal	30
CRAF 681 Candidacy Research	6
CRAF 682 Thesis Research	6
CRAF 690 Graduate Seminar	9
Graduate art history elective*	3
Graduate open electives**	6

Total graduate credit hours required (minimum) 60

Suggested course sequence

Suggested course coquertes	
Courses	Credit hours
First semester	
CRAF 601 Graduate Studies in Metal	9
CRAF 681 Candidacy Research	3
CRAF 690 Graduate Seminar	3

Second semester

CRAF 601 Graduate Studies in Metal	6
CRAF 681 Candidacy Research	3
CRAF 690 Graduate Seminar	3
Graduate open elective**	3
Third semester	
CRAF 601 Graduate Studies in Metal	6
CRAF 682 Thesis Research	3
CRAF 690 Graduate Seminar	3
Graduate art history elective*	3
Fourth semester	
CRAF 601 Graduate Studies in Metal	9
CRAF 682 Thesis Research	3
Graduate open elective**	3

Total graduate credit hours required (minimum)

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60

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student handbook: arts.vcu.edu/craft/files/2012/07/ Craft MaterialStudiesGraduateHandbook.pdf

Department of Dance and Choreography

Lea Marshall

Assistant Professor and Interim Department Chair www.vcu.edu/arts/dance

The mission of the Department of Dance and Choreography is to create an environment where the student experiences the demands and challenges of the professional dancer/choreographer. In a community setting where communication, mutual respect and self-motivation are encouraged, classes provide students with

^{*}Art history: ARTH 500-799

^{**} Graduate open electives: any 500-level or higher graduate course (Permission of instructor or program may apply.)

disciplined training that will maximize their potential to become dancers of technical excellence, choreographers with original and powerful voices and thinkers with high academic standards.

Students are trained to be performers, choreographers and teachers in this curriculum, which emphasizes modern dance and offers dance courses in modern, improvisation, composition, choreography, music, and dance forms and dance history, as well as ballet, jazz, tap, hip-hop, ballroom, contact improvisation, dance science, anatomy for dancers, video/choreography and teaching methods for dance. Additionally, the program provides a variety of experiences in performance, choreography and production. These offerings enable students to develop as savvy, expressive artists with professional training in dance technique, knowledge of dance philosophies and a foundation in history, enabling them to function as independent and creative artists in the field of dance. VCU Dance is an accredited member of the National Association of Schools of Dance.

Dance and choreography courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow these links to to dance and choreography (DANC) courses or the DANZ laboratories.

Department of Fashion Design and Merchandising

Donna Reamy

Associate Professor and Interim Department Chair www.vcu.edu/arts/fashion

The Department of Fashion Design and Merchandising offers two programs: the fashion design track leads to a Bachelor of Fine Arts degree and the fashion merchandising track leads to a Bachelor of Arts degree.

Both tracks are extremely time consuming. Students are expected to put class attendance and study time above other campus activities or employment.

All students are required to have a laptop computer. The department can provide specifications.

Students must take classes in the sequence prescribed by the department and adhere to all prerequisites. Failure to comply can lengthen the number of semesters necessary for completion of degree requirements.

Internships provide not only experience but industry contacts, and are strongly recommended. They may be conducted primarily during the summer semester.

Fashion design and merchandising courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to fashion design and merchandising (FASH) courses.

Department of Graphic Design

Graphic design is a creative and analytical process that integrates art and technology to communicate ideas and information. The goal of the Department of Graphic Design at VCU is to educate students to become innovators and leaders in three related areas of professional practice: print design, sequential design and interaction design.

Mission statement

The Department of Graphic Design encourages the exploration of diverse problem-solving methodologies, innovative investigations and creative research in all forms of communication. It is dedicated to excellence in teaching, scholarship, academic and creative research and professional practice. The Department of Graphic Design provides both an undergraduate and graduate education stressing creative and intellectual thinking; awareness of individual, social, cultural and communicative issues; the integration of new technology; and a concern for ethical implications and the natural environment. The program actively contributes to the university, local, state, national and international communities through its scholarly and creative activities, educational programs and service efforts.

Administration

David Shields

Associate Professor and Department Chair www.vcu.edu/arts/graphicdesign

Graphic design courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to graphic design (GDES) courses

Design, Master of Fine Arts (M.F.A.) with a concentration in visual communications

Program accreditation

National Association of Schools of Art and Design

Graduate program director

Steven L. Hoskins

Graduate program director, Department of Graphic Design gdesmfa@vcu.edu

(804) 828-1709

Additional contact

David Shields

Chair, Department of Graphic Design

dwshields@vcu.edu

(804) 828-1709

Program website: arts.vcu.edu/graphicdesign/mfa

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Design, Master of Fine Arts (M.F.A.) with a concentration in design studies [VCUQatar Campus]

Design, Master of Fine Arts (M.F.A.) with a concentration in interior environments – post-professional option

Design, Master of Fine Arts (M.F.A.) with a concentration in interior environments – professional entry-level option

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Design, Master of Fine Arts (M.F.A.) with a concentration in visual communications Degree: Semester(s) of Deadline dates: Test requirements: M.F.A. entry: Fall Jan 15

Special requirements:

International applicants should apply by Dec. 15 to ensure that application materials are received by the deadline.

See arts.vcu.edu/admissions/how-to-apply for details on the application process, including portfolio, resume, statement of purpose, letters of reference, transcripts and scores.

In addition to the general admission requirements of the VCU Graduate School, applicants must have taken 36 undergraduate credit hours in studio art that should include a minimum of 20 credit hours in visual communications and/or related fields. Under special circumstances, these requirements may be waived.

Interview

The department will contact selected applicants regarding the interview (may be via Skype, telephone or in person).

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty

of the university through their elected representatives to the University Graduate

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The graduate program in design with a concentration in visual communications is oriented toward individuals interested in pursuing a career in design education and/or furthering their professional practices, in conducting visual or theoretical research, and in investigating the intersections of function and expression in design problem solving.

Student learning outcomes

- Students will be able to present fluent verbal and written explanations of research and studio activities.
- Students will develop a personal vocabulary, approach and vision in creative work.
- Students will demonstrate knowledge of historical, social and cultural perspectives in relation to visual communications and clarify how they influence work.
- Students will develop the ability to create expressive forms and use them to communicate appropriately.

Degree requirements

In addition to general VCU Graduate School graduation requirements, the M.F.A. is an intensive two-year, 60 credit-hour full-time program with courses only scheduled during the day. Courses are often integrated with each other during the semester.

Curriculum requirements

Courses	Credit hours
GDES 610 Visual Communications Workshop	4
GDES 611 Visual Communications Workshop	16
GDES 612 Research Methods in Visual Communications	4
GDES 621 Visual Communications Seminar	16
GDES 698 Research Documentation and Exhibition Design	3
GDES 699 Directed Thesis Research in Visual Communications	8
Graduate electives	9
Total graduate credit hours required (minimum)	60
Graduate electives	
GDES 593 Visual Communications Internship	3
GDES 631 Visual Communications Teaching Practicum	3
GDES 692 Visual Communications Research/Individual Study	3

Additional 500-, 600- and/or 700-level graduate electives within the university require approval by the program director.

Sample plan of study

Sample plan of Study	
Courses	Credit hour
First semester	
GDES 610 Visual Communications Workshop	3
GDES 611 Visual Communications Workshop	3
GDES 621 Visual Communications Seminar	3
Graduate elective*	6
Second semester	
GDES 611 Visual Communications Workshop	3
GDES 612 Research Methods in Visual Communications	3
GDES 621 Visual Communications Seminar	6
Graduate elective*	3
Candidacy review presentation	
Third semester	
GDES 611 Visual Communications Workshop	3
GDES 621 Visual Communications Seminar	6
GDES 699 Directed Thesis Research in Visual Communications	3
Graduate elective*	3
Third semester thesis project review	
Fourth semester	
GDES 621 Visual Communications Seminar	3
GDES 698 Research Documentation and Exhibition Design	3
GDES 699 Directed Thesis Research in Visual Communications	9
Fourth semester thesis project review	
M.F.A. thesis project exhibition	
Oral review	

Total graduate credit hours required (minimum)

60

*Additional 500-, 600- and/or 700-level graduate electives within the university require approval by the program director.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of Interior Design

The Department of Interior Design is accredited by the Council for Interior Design Accreditation. The mission of the department is to provide an intellectually rigorous, studio-based experience grounded in the issues of interior architecture. The department develops in its students an enduring passion and curiosity for their work, a determination to continually seek quality in their endeavors, an ability to reflect constructively upon their actions as individuals and a responsibility for their lifelong education. The department focuses students' professional activities while encouraging connections between these activities and the larger forum of ideas that enrich their culture and environment. The Bachelor of Fine Arts in Interior Design program prepares students for careers in interior design or entry into programs of advanced study.

The department also offers a Master of Fine Arts in Design with a concentration in interior environments with a first-professional track and a postprofessional track. These tracks seek to produce competent creative designers whose design solutions are based on human response in the contemporary environment. Mastery of design skills, development of productive habits, knowledge of resources and an awareness of interrelated disciplines equip the student with the tools and expertise necessary to pursue creative design positions.

The department relates with the professional interior design community through a variety of activities. The faculty invites featured speakers to share experiences, participate in the annual ASID EXPO, facilitate mentorships with professional designers and support student internships. An active student chapter of the American Society of Interior Designers provides additional enriching opportunities for student involvement.

The department offers limited accelerated undergraduate preparation for those individuals who lack full preparation. Assessment of the individual candidate's needs will determine the scope of the preparatory course work. This is an opportunity to gain the skills and design experiences required to qualify for admission to the graduate degree program.

The department has a very comprehensive Web site with extensive information about the program, interior design in general, faculty, student work and the department newsletter. In advance of scheduling a meeting for department advising or for application to the program, students should review the Web site at www.pubinfo.vcu.edu/artweb/interiors/.

Administration

Sharran F. Parkinson

Professor and Department Chair

www.vcu.edu/arts/interiordesign

Interior design courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to interior design (IDES) courses.

Design, Master of Fine Arts (M.F.A.) with a concentration in interior environments – post-professional option

Program accreditation

Council for Interior Design Accreditation

Graduate program director

Christiana Lafazani, M.F.A., I.D.E.C., N.C.I.D.Q.

Associate professor, graduate director and interim chair, Department of Interior Design

clafazani@vcu.edu

(804) 828-1713

Additional contact

Robert D. Smith, M.F.A.

Assistant professor and administrative director smithrd@vcu.edu (804) 827-4574

Program website: arts.vcu.edu/interiordesign

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Design, Master of Fine Arts (M.F.A.) with a concentration in design studies [VCUQatar Campus]

Design, Master of Fine Arts (M.F.A.) with a concentration in interior environments – professional entry-level option

Design, Master of Fine Arts (M.F.A.) with a concentration in visual communications

Apply online at graduate.admissions.vcu.edu.

Admission requirements

TOEFL score requirements.

Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.F.A.	entry:		TOEFL or IELTS
	Fall	Feb 1	scores for
			international student
			only

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following minimum requirements:

- 1. An interview is recommended, but not required.
- 2. Previous university/college transcripts (one official copy)
- 3. Three letters of recommendation to be submitted electronically through the online application process
- 4. Essay: three-to-five page (minimum) sample of academic writing
- 5. Written personal statement (one to two pages)
- 6. A resume
- TOEFL score (international students only) 600 paper/2500 computer/100 Internet
- A portfolio with samples of design work (Applicants will be directed to upload portfolio images and/or video after they start the application process.)

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The mission of the Department of Interior Design in VCU's School of the Arts is to provide an intellectually rigorous, studio-based experience grounded in the issues of interior architecture. The department develops in its students an enduring passion and curiosity for their work, a determination to continually seek quality in their endeavors, an ability to reflect constructively upon their actions as individuals, and a responsibility for their lifelong education. The department focuses a student's professional activities while encouraging connections between these activities and a larger forum of ideas that enrich their culture and their environment.

Student learning outcomes

- 1. Students will demonstrate professional values.
- 2. Student work will demonstrate advanced design theory.
- 3. Student work will demonstrate advanced knowledge of interior design.
- 4. Student work will demonstrate effective communication.
- Students will demonstrate a foundation in business and professional practices.

Concentration in interior environments - post-professional option

The post-professional option is a subconcentration of the interior environments concentration, one of about 10 available nationally, that allows students who already have undergraduate degrees in interior design or architecture the opportunity to develop an individualized direction in scholarship. Admission is highly selective and open only to students who have demonstrated a high caliber of work at the undergraduate and/or master's level.

Degree requirements

In addition to general VCU Graduate School graduation requirements, a minimum of 60 credit hours is required within prescribed courses. A research-design project is required to complete the program of study. This project is undertaken and developed in the context of IDES 699 and must consist of the testing of an original idea that is supported by research. This information will be synthesized through the design development process and culminate in an individual creative project of complex scale and scope. Documentation must follow established guidelines and be presented in a form that can be retained by the department and the university. On completion of the thesis, students participate in an oral examination and a graduate exhibition.

Curriculum requirements

Courses	Credit hours
IDES 601 Graduate Interior Environments Studio	4
IDES 623 Advanced Design Studies	18
or IDES 635 Teaching Practicum in Interior Environments or open electives*	
IDES 690 Graduate Seminar in Interior Environments	12
IDES 693 Interior Design Internship (optional)	3-6
IDES 699 Creative Project – Thesis	6
Electives	12
Total graduate credit hours required (minimum)	60
Sample plan of study	
Courses	Credit hours
First semester	
IDES 601 Graduate Interior Environments Studio	6
IDES 690 Graduate Seminar in Interior Environments	3
Design/arts electives*	6
Second semester**	
Second semester** IDES 601 Graduate Interior Environments Studio	6

IDES 690 Graduate Seminar in Interior Environments	3
Design/arts electives*	6
Summer	
IDES 693 Interior Design Internship (optional)	3-6
(may be substituted for elective credit hours)*	
Third semester	
IDES 601 Graduate Interior Environments Studio	6
IDES 635 Teaching Practicum in Interior Environments or IDES 623	6
Advanced Design Studies or open electives*	
IDES 690 Graduate Seminar in Interior Environments	3
Fourth semester	
IDES 623 Advanced Design Studies or open electives*	6
IDES 690 Graduate Seminar in Interior Environments	3
IDES 699 Creative Project – Thesis	6
Total graduate credit hours required	60

- * At least 12 credit hours of electives must be studio classes. Electives must be graduate-level and approved by the program director.
- ** Candidacy review occurs upon successful completion of the second semester.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

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Graduation requirements



Design, Master of Fine Arts (M.F.A.) with a concentration in interior environments – professional entry-level option

Program accreditation

Council for Interior Design Accreditation

Graduate program director

Christiana Lafazani, M.F.A., I.D.E.C., N.C.I.D.Q.

Associate professor, graduate director and interim chair, Department of Interior Design

clafazani@vcu.edu (804) 828-1713

Additional contact

Robert D. Smith, M.F.A. Assistant professor and administrative director smithrd@vcu.edu (804) 827-4574

Program website: arts.vcu.edu/interiordesign

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Design, Master of Fine Arts (M.F.A.) with a concentration in design studies [VCUQatar Campus]

Design, Master of Fine Arts (M.F.A.) with a concentration in interior environments – post-professional option

Design, Master of Fine Arts (M.F.A.) with a concentration in visual communications

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.F.A.	entry: Fall	Feb 1	TOEFL or IELTS
	raii	reo i	scores for international students only

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following minimum requirements:

- 1. An interview is recommended, but not required.
- 2. Previous university/college transcripts (one official copy)
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- 4. Essay: three-to-five page (minimum) sample of academic writing
- 5. Written personal statement (one to two pages)
- 6. A resume
- TOEFL score (international students only) 600 paper/2500 computer/100 Internet
- A portfolio with samples of design work (Applicants will be directed to upload portfolio images and/or video after they start the application process.)

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The mission of the Department of Interior Design in VCU's School of the Arts is to provide an intellectually rigorous, studio-based experience grounded in the issues of interior architecture. The department develops in its students an enduring passion and curiosity for their work, a determination to continually seek quality in their endeavors, an ability to reflect constructively upon their actions as individuals, and a responsibility for their lifelong education. The department focuses a student's professional activities while encouraging connections between these activities and a larger forum of ideas that enrich their culture and their environment.

Student learning outcomes

- 1. Students will demonstrate professional values.
- 2. Student work will demonstrate advanced design theory.
- 3. Student work will demonstrate advanced knowledge of interior design.
- 4. Student work will demonstrate effective communication.
- Students will demonstrate a foundation in business and professional practices.

Concentration in interior environments - professional entry-level option

The professional entry-level track is a 60-72 credit-hour program for second-degree seekers who have a proven record of academic excellence in a field other than architecture or interior design and are interested in pursuing a career in interior design. The structure of the track echoes the B.F.A. in Interior Design program in content, but advances the student at an accelerated rate during the first year and summer, bringing students parallel with the curriculum of the post-professional track by the second year.

The curriculum is highly sequenced, and students are admitted to the program for the fall semester only. All incoming students are required to take part in an intensive workshop in the summer that introduces and develops drawing, presentation skills and an understanding of two- and three-dimensional design methods. Students must successfully pass the workshop with a minimum grade of B to begin the professional entry-level track. Applicants who have an art or design background are strongly encouraged to submit a portfolio for review with their application. PowerPoint is the preferred format for the portfolio. Applicants are also required to submit three letters of recommendation and a three-to-five page writing sample.

Degree requirements

In addition to general VCU Graduate School graduation requirements, a minimum of 60 credit hours is required within prescribed courses. A research-design project is required to complete the program of study. This project is undertaken and developed in the context of IDES 699 and must consist of the testing of an original idea that is supported by research. This information will be synthesized through the design development process and culminate in an individual creative project of complex scale and scope. Documentation must follow established guidelines and be presented in a form that can be retained by the department and the university. On completion of the thesis, students participate in an oral examination and a graduate exhibition.

Curriculum requirements

Courses	Credit hours
Prerequisite	2-12
Students with no art or design background must successfully complete thic lass with a minimum grade of B as a prerequisite for enrolling in the program.	S
IDES 500 Art and Design Methods Workshop or elective	2-12
Required courses	
IDES 501 Introductory Graduate Design Studio I	6
IDES 502 Introductory Graduate Design Studio II	6
IDES 511 Introductory Graduate Graphics I	3
IDES 512 Introductory Graduate Graphics II	3

IDES 521 Advanced Material Studies for Interior Environments	2
IDES 522 Environmental Factors in Interior Environments	2
IDES 601 Graduate Interior Environments Studio	6
IDES 611 Advanced Graphics for Interior Environments I	2
IDES 612 Advanced Graphics for Interior Environments II	2
IDES 623 Advanced Design Studies	3
IDES 624 Advanced Furniture Design or elective	2-3
IDES 626 Advanced Light and Color for Interior Environments	2
IDES 631 Ethics and Business Procedures for Interior Environments	2
IDES 651 History and Theory of Interior Environments I	2
IDES 652 History and Theory of Interior Environments II	2
IDES 690 Graduate Seminar in Interior Environments	3
IDES 693 Interior Design Internship	4-6
IDES 699 Creative Project – Thesis	6
Arts or other graduate-level elective (must be approved by program director)	2-4

Total graduate credit hours required (minimum)

Note: Candidacy/portfolio review occurs upon successful completion of the second semester.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of Kinetic Imaging

Pam Turner

Associate Professor and Department Chair www.arts.vcu.edu/kineticimaging

The Department of Kinetic Imaging prepares students to use video, animation and sound for the purpose of art-making, self-expression and experimentation. The kinetic imaging programs are designed for students who want to study video art, sound design and experimental two-dimensional and three-dimensional animation. Emphasis is placed on artistic uses of the media.

The department offers an undergraduate curriculum leading to a Bachelor of Fine Arts in Kinetic Imaging as well as a graduate level program that results in a Master of Fine Arts in Fine Arts.

Kinetic imaging courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to kinetic imaging (KINE) courses.

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in kinetic imaging

Program accreditation

National Association of Schools of Art and Design

Graduate program director

Stephen Vitiello

Professor

60

smvitiello@vcu.edu

(804) 828-3581

Program website: arts.vcu.edu/kineticimaging/mfa-program

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in ceramics

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in fibers

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in furniture design

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in glassworking Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in jewelry/metalworking

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in painting Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in photography and film

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in printmaking Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in sculpture

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.F.A.	entry:		None
	Fall	Jan 15	

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the requirements listed on the website above.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goals

The Department of Kinetic Imaging is committed to the artistic exploration of video, animation and sound. The M.F.A. program emphasizes the extension of these practices into the arts and their connection to contemporary issues in visual culture

Graduate students in the M.F.A. program are exposed to a vigorous visiting artist schedule. Through studio reviews, seminars and research, the students are expected to build an awareness of contemporary and historical definitions of art that will influence their creative work. In addition to their own investigations, graduate students participate in and contribute to the undergraduate program.

While the graduate program is generally a two-year, four-semester in-residence program, students are expected to continue pursuits either on campus or at an alternative site throughout the calendar year.

Student learning outcomes

- Through studio reviews, seminars and research, students are expected to build an awareness of contemporary and historical definitions of art that will influence their creative work
- Students will demonstrate critical thinking and conceptual problem-solving, with the ability to contribute to and challenge the rapidly evolving dialogue in media arts.
- Students? creative work will demonstrate an engagement with critical thinking and conceptual problem-solving.
- 4. Students will demonstrate the ability to carry their work and critical inquiry to professional platforms such as public exhibitions, performance and/or scholarly publication. This includes knowledge of the various venues available to support and enhance their professional careers and the ability to accurately communicate what their work is addressing and who they are as artists.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete 60 credit hours total, which includes studio, seminar and elective courses. While seminar and studio courses are offered through the kinetic imaging program, these credit hours can include other courses from within the fine arts degree program with the approval of the graduate program director. Additional elective courses are drawn from approved courses in participating units.

To graduate, degree applicants must achieve an overall grade point average of 3.0 (B) on a 4.0 scale with a grade of C in no more than two courses. The GPA for graduation will be based on all graduate courses attempted after acceptance into the program

The M.F.A. in Fine Arts with a concentration in kinetic imaging will be a 60-credit hour program consisting of eight credit hours of graduate studio, four credit hours of graduate seminar and three credit hours of electives* (15 credit hours) each semester. The program will typically take two years of full-time study to complete.

The M.F.A. in Fine Arts with a concentration in kinetic imaging is consistent with national standards established by the accrediting National Association of Schools of Art and Design.

The curriculum for the M.F.A. in Fine Arts with a concentration in kinetic imaging is built on the understanding that incoming students will exhibit high levels of ability and quickly demonstrate a serious commitment to their work and artistic development. Students accepted into the graduate program will possess a competitive portfolio and a minimum 3.0 grade point average, with a B.A., B.F.A., B.S. or M.A. from an accredited university. Due to the interdisciplinary nature of these media arts disciplines, applicants with degrees in other disciplines will be encouraged to apply. At the end of the first year, students will go through an advanced candidacy review, where they will present and defend their work before their graduate committee, which will be composed of members from the Department of Kinetic Imaging and other fine arts departments, following the current M.F.A. model. During the final semester, graduates will be required to complete a body of work resulting in an M.F.A. exhibition and written thesis, which will serve as the capstone elements of the degree program and be evaluated by the student's graduate committee.

Curriculum requirements

Courses	Credit hours
KINE 600 Graduate Studio*	32
KINE 692 Graduate Seminar**	16
Approved graduate elective***	12

60

Total graduate credit hours required (minimum)

Each semester the student enrolls in 15 credit hours as follows:

KINE 600 Graduate Studio – 8 credit hours KINE 692 Graduate seminar – 4 credit hours Approved graduate elective – 3 credit hours

- *An exhibition will be required as a prerequisite for graduation.
- **Enrollment in the graduate seminar is mandatory for the duration of the student's study in the graduate program.
- ***Electives may be chosen from among all university courses listed as 500-level or greater and require approval from a faculty adviser.

Department electives

KINE 510 Foundations in Media	3
KINE 591 Topics in Contemporary Media	3
KINE 691 Independent Study	3
KINE 695 Advanced Sound	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of Music

The Department of Music is committed to the advancement of Western art music and jazz as academic disciplines, as fields of professional endeavor and as a viable presence in the community. Entrance and graduation requirements comply with the National Association of Schools of Music guidelines. The department offers degree programs at the baccalaureate and master's levels, and each of them are described in detail on individual program pages within the Bulletins Web site.

Participating in the VCU musical community means involvement in a musically rich environment of studio lessons, small classes, independent study and participation in performing organizations, as well as hearing outstanding

professional performers in the classical and jazz traditions. On-campus master classes with major touring artists are an important addition to the regular instructional program. Student soloists also may appear with regional and university ensembles. Through the Mary Anne Rennolds Chamber Concerts and other events, the department is one of the region's major sponsors of music performances.

Approximately 330 students choose to major in music, with many other students from throughout the university taking courses and participating in ensembles. There are 20 full-time faculty, more than half of whom hold doctorates, in addition to 45 part-time instructors. Among the faculty are internationally recognized performers, composers, researchers and teachers — musician-educators who are active in all facets of the professional music world. The faculty includes members and regular performers with ensembles that include the Richmond and Virginia Symphonies, the New York Philharmonic, the Virginia Opera, Rhythm and Brass, the Great American Music Ensemble and National Chamber Players. The faculty maintains a high level of recognition through each individual's publications, recordings, international performances and lectures.

The department is housed in two buildings. The principal facility is the W.E. Singleton Center for the Performing Arts, which includes the 502-seat Sonia Vlahcevic Concert Hall, faculty offices, rehearsal rooms and special studios for organ, percussion and piano. The James W. Black Music Center has a 347-seat recital hall, classrooms, practice rooms, rehearsal spaces, faculty offices and studios

Administration

Darryl Harper

Associate Professor and Department Chair (804) 828-1166 www.vcu.edu/arts/music

Information for undergraduates

Admission and auditions
Grades and achievement levels
Electives in music
Internship in music
Fees
Recital/convocation attendance
Master class
Ensemble requirements

Admission and auditions

An audition/interview as well as both written and aural general musicianship examinations are necessary for admission to programs in the Department of Music. Students must also meet the general admission requirements of the university. For audition information contact Virginia Commonwealth University, Department of Music, 922 Park Ave., P.O. Box 842004, Richmond, VA 23284-2004; phone (804) 828-1166 or e-mail music@vcu.edu.

Grades and achievement levels

All music majors are required to maintain a cumulative GPA of 2.0 and pass at least one applied achievement level within any two-semester period (not including summers) in order to continue as music majors. Jazz studies majors must pass one applied achievement level of classical instrument study per two-semester period (not including summers) and at least one jazz applied music level within the first three semesters in order to maintain a jazz studies concentration. All music students also must pass MHIS 145-146 Theory and Aural Skills I-II by the end of the fourth semester. Any student who fails to meet or maintain these standards will not be allowed to continue as a music major. A student may audition for readmission into the department as a music major only with permission from the Department of Music.

A cumulative GPA of 2.8 is required for music education students to qualify for student teaching placement. Music education students who do not maintain a cumulative 2.8 GPA will not be allowed to continue in the music education track, but may continue in the Bachelor of Arts program or the Bachelor of Music performance track if they meet the minimum requirements that apply to those respective degree programs.

Electives in music

Students majoring in a field other than music may register for ensembles, private lessons and a variety of classroom courses in music. Classes in music appreciation, African-American music, introduction to writing music, basic music skills and special offerings in music are specifically designed for the non-music major.

Internship in music

Interested students should consult with a faculty member closely associated with the appropriate field. As the student approaches junior academic standing, he or she may apply to the department for participation in APPM 493 Music Internship. Applications will be reviewed on the basis of academic GPA, instructor recommendation(s), professional promise, and demonstrated interest and competence in the area of study. The student must possess a minimum 2.5 overall GPA with a minimum 3.0 GPA in major course work in music. All students (including transfers) must have completed a minimum of 60 credits.

All internships for credit are approved by the Department of Music. The experience may also be coordinated by VCU's Cooperative Education/Internship Program. The latter office requires completion of an application and resume.

Fees

All students registering for APPL 200 Applied Lessons pay an applied music fee. This fee is additional to the comprehensive fee charged only to majors in the School of the Arts. Current fee rates for music lessons can be found on the Student Accounting website at www.enrollment.vcu.edu/accounting/tuition fees.html.

Recital/convocation attendance

All undergraduate majors are required to pass four semesters of recital/convocation attendance for graduation. During each semester of enrollment, the student must attend a minimum number of concerts or recitals plus departmental convocations in order to pass the requirement.

Master class

This requirement consists of participation in weekly master classes in the student's applied major area. For students in the Bachelor of Music program, enrollment in master class is required for each semester that students enroll for a two-credit lesson on their principal performing instrument. A minimum of eight semesters in the performance concentration (jazz studies majors take four semesters classical and four semesters jazz) and six semesters for the music education concentration are required. Students in the Bachelor of Arts in Music program must also enroll in master class each semester they take a two-credit lesson until they complete a minimum of four semesters of master class on the same instrument.

Ensemble requirements

To ensure consistent skill development in ensemble settings, only one large ensemble credit per semester will be counted toward a student's large ensemble requirements. Students whose principal instrument is a band or orchestral instrument must satisfy the large ensemble requirement by performing in a large ensemble on that instrument. Students whose principal instrument is voice must satisfy the requirement by performing in a large choral ensemble on voice. Those whose principal instrument is piano must complete four of their six elective credits by playing the piano in ensembles. Jazz studies majors must have ensembles approved in advance by their adviser or program director. Bachelor of Arts students must earn six credits in either large or small ensembles.

Music courses

Upper-division undergraduate students may enroll for selected 500-level graduate courses with permission of the department chair and instructor. Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level. Unless otherwise indicated, courses must be taken in numerical sequence.

The Department of Music offers courses in the following areas:

Use this link to see applied music (APPM) courses.

Use this link to see music composition (MUSC) courses.

Use this link to see music education (MUED) courses.

Use this link to see music history, literature and theory (MHIS) courses

Music, Master of (M.M.) with a concentration in music education

Program accreditation

National Association of Schools of Art and Design

Graduate program director

David J. Greennagel, Ph.D. Director of music education djgreennagel@vcu.edu (804) 828-8523

Additional contact

Department of Music Admissions Office apply4music@vcu.edu (804) 828-1167

Program website: arts.vcu.edu/music/areas-of-study/music-education/graduate-program

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Music, Master of (M.M.) with a concentration in music education			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.M.	entry:		None
	Summer only	Apr 1	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Baccalaureate degree in music or music education from an accredited institution
- Virginia teaching certification in PK-12 music education (or same from a reciprocal state)
- Written statement of personal philosophy of music education used to assess thoughtful reflection on larger issues of the profession, ability to express thought in clearly written English and as diagnosis for specific deficiencies in this area
- 4. Three letters of recommendation must include letter from persons who have directly observed applicant's teaching
- 5. Interview with the director of music education

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It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Music with a concentration in music education program at VCU is designed to provide the opportunity for advanced, graduate study for the practicing professional music educator. It is the goal of the Department of Music that successful graduates emerge as leaders and innovators in the profession.

The curricular goal of the program is to provide flexibility in addressing the individual pedagogical interests of each student as well as the framework and foundations needed for continued advanced study in music education at the doctoral level. As part of this design, the degree is offered exclusively as a three-summer program, with continuous enrollment required following admittance to degree candidacy (fall and spring semesters prior to third summer). This design provides a "real-world" option for the practicing music educator to enter graduate study.

Student learning outcomes

- 1. Understand research in music education
- 2. Understand current issues in music education
- 3. Develop advanced pedagogical skills

Degree requirements

In addition to general VCU Graduate School graduation requirements, the Master of Music program requires a minimum of 30 graduate credit hours. The summer program is intended to be completed in three consecutive summer sessions and is structured into three cognate areas: music education, music pedagogy and professional education. Music education and music pedagogy cognate courses are offered on a rotating basis, with electives in music pedagogy developed and offered on an ongoing basis. This structure permits the student to enter the program at any given point in the sequence. The student will apply for degree candidacy following the completion of 18 credit hours. It is recommended that students enroll in eight to nine credit hours each summer. Final project credit hours are earned through online enrollment during the fall/spring semester and in residency during the final summer session following admittance to degree candidacy.

Curriculum requirements

Courses	Credit hours
Cognate areas	
Music education	12
MUED 600 Seminar in Music Education	3
MUED 610 Psychology of Music	3
MUED 620 Introduction to Research in Music Education	3
MUED 783 Final Project in Music Education	3
Music pedagogy (Select a minimum of 12 credit hours from either the instrumental focus or choral focus areas.)	12
Instrumental focus	
MUED 614 Instrumental Conducting Techniques	3
MUED 616 Researching the Wind Band: Strategies and Resources	3
MUED 618 History and Literature of the Wind Band	3
MUED elective: MUED 583 Special Workshop in Music Education or MUED 591 Topics in Music Education	3
THEA 601 Advanced Voice and Speech Pedagogy: Shakespeare	3
Choral focus	
MUED 604 Choral Conducting and Rehearsal Techniques	3
MUED 606 Choral Literature and Style	3

MUED 608 Teaching the Adolescent Singer 3
MUED elective: MUED 583 Special Workshop in Music Education or 3
MUED 591 Topics in Music Education) 3

Professional education

A focus on areas of education of interest to student: to be determined by student and adviser, with adviser approval. May include EDUS 605, 607, 662, 673, 701; ADMS 600, 606, 611; and other graduate-level School of Education offerings

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of Painting and Printmaking

The Department of Painting and Printmaking offers an undergraduate program that earns a Bachelor of Fine Arts in Painting and Printmaking, as well as a graduate program of study that leads to the Master of Fine Arts in Fine Arts. Students admitted to the programs are expected to have a high level of competence in either painting or printmaking. The graduate program is designed to encourage the development of professional attitudes and skills, with an emphasis on individual investigation.

The department is housed in the new Fine Arts Building with 15 individual graduate studios plus a large graduate printmaking area in addition four state-of-the-art undergraduate printmaking studios: etching, lithography, screenprinting and digital. These new facilities provide an excellent physical environment for the programs with easy access to the other fine art areas of sculpture and crafts. Established in 1928, the Department of Painting and Printmaking was the first department in what has become the School of the Arts. For nearly 70 years, the department has made significant contributions to the development of the School of the Arts' reputation as one of the premier art schools in the country.

The department supports an active and ambitious program of visiting artists and lecturers. Leading figures in the world of contemporary art visit to discuss their work, critique, visit studios, conduct workshops and meet with students throughout the year.

The Master of Fine Arts degree is the terminal degree in the studio areas of fine arts and is a requirement for most college and university teaching positions. Many

graduate students have gained teaching experience in the department as part of their assistantship responsibilities, teaching classes in painting, drawing and printmaking. The department assists graduate students financially through a variety of teaching assistantships, graduate assistantships and scholarships.

Administration

Arnold Kemp

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30

Associate Professor and Department Chair www.vcu.edu/arts

Painting and printmaking courses

The following graduate courses may be taken by undergraduates for degree credit: PAPR 525, 527 and 528. Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level. Unless otherwise indicated, courses must be taken in numerical sequence.

Follow this link to painting and printmaking (PAPR) courses.

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in painting

Program accreditation

National Association of Schools of Art and Design

Graduate program director

Holly Morrison

Associate professor and graduate program director hjmorrison@vcu.edu (804) 827-1697

(804) 827-1097

Additional contact

Ron B. Johnson

Assistant professor and administrative director johnsonrb@vcu.edu

(804) 828-2787

Program website: arts.vcu.edu/paintingprintmaking

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in ceramics

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in fibers

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in furniture design

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in glassworking

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in jewelry/metalworking

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in kinetic imaging Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in photography and film

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in printmaking Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in sculpture

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in painting			
Degree: M.F.A.	Semester(s) of entry: Fall	Deadline dates: Jan 15	Test requirements: None
Special require See arts.vcu.ed	ements: u/admissions/how-to-apply	for details on the appli	cation process.

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the requirements listed on the website above.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The graduate program advances the development of:

- Individual studio and scholarly talents, interests and philosophies, used creatively to both expand and preserve our cultural heritage
- 2. Professional studio competence as exemplified by a significant body of work
- Individuals with the potential to solve contemporary problems in all aspects of the visual arts and to explore and address new questions and issues
- Professional competence in the dissemination of knowledge, including logical, clear verbal and written presentation of aesthetic ideas in teaching and other contexts
- Scholarly competence in the organization, evaluation and interpretation of knowledge
- Students will achieve technical proficiency in relation to the tools, techniques and materials used in their field and the expertise to visually articulate their ideas.
- Students will achieve proficiency regarding critical thinking and conceptual
 problem-solving with particular focus on the context and practice of painting
 and printmaking.

Student learning outcomes

- 1. Define work in relation to history and practice
- 2. Engage fully in critical discourse
- 3. Increase knowledge of materials and techniques
- Develop professional practice: engage in opportunities that develop the experience required to manage a creative professional career

Degree requirements

In addition to general VCU Graduate School graduation requirements, the M.F.A. in Fine Arts with a concentration in painting or printmaking requires 60 credit hours and is usually completed in two years of full-time study. Most of these credit hours are in studio areas and are augmented by related courses in specialized academic fields. A graduate seminar meets weekly and addresses topics related to contemporary art and theory. Two required semesters of art and critical theory are presented in a course that surveys the major themes of contemporary art criticism.

Graduate students meet with individual committees composed of three faculty members. Each committee and student conducts an ongoing dialogue and critique. At the end of the second semester students discuss their work at a candidacy critique comprising their committee and additional faculty members. M.F.A. recipients mount a comprehensive exhibition of their work at the university's Anderson Gallery at the successful conclusion of the program's second year.

The Master of Fine Arts program is based on intensive studio practice at an advanced level in the areas of painting and printmaking. The program is highly selective and is presently limited to 15 participants.

Curriculum requirements

Courses

Credit hours

Total graduate credit hours required (minimum)		60
Electives (see list below)	12	
PAPR 690 Graduate Seminar	12	
PAPR 605 Graduate Painting or PAPR 615 Graduate Printmaking	24	
for fine artists)		
PAPR 591 Topics in Painting and Printmaking (professional practices	3	
PAPR 591 Topics in Painting and Printmaking (critical issues)	3	
PAPR 527-528 Art and Critical Theory	6	

Recommended elective courses:

ARTH 591 Special Topics in Art History

ARTH 789 Problems in Advanced Art and Architectural History

ARTS 591 Special Topics

ARTS 592 Individual Projects/Fieldwork

KINE 690 Graduate Seminar (with permission of graduate adviser)

KINE 695 Advanced Sound (with permission of instructor)

PAPR 615 Graduate Printmaking

PHTO 690 Seminar in Photography and Film (with permission of instructor)

Typical plan of study

Courses	hours
First semester	
PAPR 527 Art and Critical Theory	3
PAPR 591 Topics in Painting and Printmaking (critical issues)	3
PAPR 605 Graduate Painting or PAPR 615 Graduate Printmaking	6
PAPR 690 Graduate Seminar	3
Second semester	
PAPR 528 Art and Critical Theory	3
PAPR 605 Graduate Painting or PAPR 615 Graduate Printmaking	6
PAPR 690 Graduate Seminar	3
Elective	3
Third semester	
PAPR 591 Topics in Painting and Printmaking (professional practices for fine artists)	3
PAPR 605 Graduate Painting or PAPR 615 Graduate Printmaking	6
PAPR 690 Graduate Seminar	3
Elective	3
Fourth semester	
PAPR 605 Graduate Painting or PAPR 615 Graduate Printmaking	9
PAPR 690 Graduate Seminar	3
Academic elective	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

60

Total graduate credit hours required (minimum)

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Degree candidacy requirements



Graduation requirements

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Graduation requirements



Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in printmaking

Program accreditation

National Association of Schools of Art and Design

Graduate program director

Holly Morrison

Associate professor and graduate program director

hjmorrison@vcu.edu (804) 827-1697

Additional contact

Ron B. Johnson

Assistant professor and administrative director

johnsonrb@vcu.edu

(804) 828-2787

Program website: arts.vcu.edu/paintingprintmaking

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in ceramics

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in fibers

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in furniture design

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in glassworking

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in jewelry/

metalworking

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in kinetic imaging

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in painting

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in photography and

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in sculpture

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in printmaking			
Degree: M.F.A.	Semester(s) of entry: Fall	Deadline dates: Jan 15	Test requirements: None
Special requir See arts.vcu.ed	ements: u/admissions/how-to-apply	for details on the appli	ication process.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The graduate program advances the development of:

- Individual studio and scholarly talents, interests and philosophies, used creatively to both expand and preserve our cultural heritage
- 2. Professional studio competence as exemplified by a significant body of work
- 3. Individuals with the potential to solve contemporary problems in all aspects of the visual arts and to explore and address new questions and issues
- Professional competence in the dissemination of knowledge, including logical, clear verbal and written presentation of aesthetic ideas in teaching and other contexts
- Scholarly competence in the organization, evaluation and interpretation of knowledge
- Students will achieve technical proficiency in relation to the tools, techniques
 and materials used in their field and the expertise to visually articulate their
 ideas
- Students will achieve proficiency regarding critical thinking and conceptual problem-solving with particular focus on the context and practice of painting and printmaking.

Student learning outcomes

- 1. Define work in relation to history and practice
- 2. Engage fully in critical discourse
- 3. Increase knowledge of materials and techniques
- Develop professional practice: engage in opportunities that develop the experience required to manage a creative professional career

Degree requirements

In addition to general VCU Graduate School graduation requirements, the M.F.A. in Fine Arts with a concentration in painting or printmaking requires 60 credit hours and is usually completed in two years of full-time study. Most of these credit hours are in studio areas and are augmented by related courses in specialized academic fields. A graduate seminar meets weekly and addresses topics related to contemporary art and theory. Two required semesters of art and critical theory are presented in a course that surveys the major themes of contemporary art criticism.

Graduate students meet with individual committees composed of three faculty members. Each committee and student conducts an ongoing dialogue and critique. At the end of the second semester students discuss their work at a candidacy critique comprising their committee and additional faculty members. M.F.A. recipients mount a comprehensive exhibition of their work at the university's Anderson Gallery at the successful conclusion of the program's second year.

The Master of Fine Arts program is based on intensive studio practice at an advanced level in the areas of painting and printmaking. The program is highly selective and is presently limited to 15 participants.

Curriculum requirements

Courses	Credit hours
PAPR 527-528 Art and Critical Theory	6
PAPR 591 Topics in Painting and Printmaking (critical issues)	3
PAPR 591 Topics in Painting and Printmaking (professional practices for fine artists)	3
PAPR 605 Graduate Painting or PAPR 615 Graduate Printmaking	24
PAPR 690 Graduate Seminar	12
Electives (see list below)	12

Recommended elective courses:

ARTH 591 Special Topics in Art History

ARTS 591 Special Topics

ARTS 592 Individual Projects/Fieldwork

KINE 690 Graduate Seminar (with permission of graduate adviser)

Total graduate credit hours required (minimum)

KINE 695 Advanced Sound (with permission of instructor)

PAPR 615 Graduate Printmaking

PHTO 690 Seminar in Photography and Film (with permission of instructor)

Typical plan of study

Courses	Credit hours
First semester	
PAPR 527 Art and Critical Theory	3
PAPR 591 Topics in Painting and Printmaking (critical issues)	3
PAPR 605 Graduate Painting or PAPR 615 Graduate Printmaking	6
PAPR 690 Graduate Seminar	3
Second semester	
PAPR 528 Art and Critical Theory	3
PAPR 605 Graduate Painting or PAPR 615 Graduate Printmaking	6
PAPR 690 Graduate Seminar	3
Elective	3
Third semester	
PAPR 591 Topics in Painting and Printmaking (professional practices for fine artists)	3
PAPR 605 Graduate Painting or PAPR 615 Graduate Printmaking	6
PAPR 690 Graduate Seminar	3
Elective	3
Fourth semester	
PAPR 605 Graduate Painting or PAPR 615 Graduate Printmaking	6
PAPR 690 Graduate Seminar	3
Academic elective	3
Studio elective	3
Total graduate credit hours required (minimum)	60

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the

student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

60

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of Photography and Film

The Department of Photography and Film seeks to advance the highest standards of the media of photography and filmmaking by encouraging the creative and professional growth of both its students and faculty. The goal is to provide a forum for the development and exchange of visual ideas and to encourage its members to translate these ideas with a high degree of sensitivity and proficiency. The department fosters a pluralistic approach that allows both faculty and students to expand the traditional boundaries of the respective media, explore a broad range of conceptual orientations and engage in multidisciplinary practice.

The department offers undergraduate concentrations in photography and filmmaking resulting in a Bachelor of Fine Arts in Photography and Film, as well as a graduate program that leads to a Master of Fine Arts in Fine Arts with a concentration in photography and film.

To promote student development and research of contemporary art practice and theory, the Department of Photography and Film presents a diverse and active visiting artist program. Through lectures, critiques and research courses, students are exposed to the valuable insights of respected international artists, scholars and critics. In addition, the visiting artists teach topics courses exploring the current artistic and conceptual foundations found in their own work. Graduate students are encouraged to establish an individual critical dialogue with the visiting artists and faculty and attain a strong critical and historical basis for their work.

The facilities include several critique and screening rooms; a large black-and-white darkroom; a large state-of-the-art digital photography and film editing lab; a shooting studio; a student checkout center with a wide range of still photography and film cameras, professional lights and sound recording equipment; a professionally staffed graphics lab located in the same building that provides student with digital services on several high-tech imaging devices; and two large graduate workrooms.

Administration

Sasha Freyer Waters

Associate Professor and Department Chair www.vcu.edu/arts/photo

Photography and film courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to photography and film (PHTO) courses.

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in photography and film

Program accreditation

National Association of Schools of Art and Design

Graduate program director

Paul B. Thulin

Assistant professor and director of graduate studies pbthulin@vcu.edu

(804) 828-6056

Additional contact

Sasha A. Waters Freyer

Associate professor and chair, Department of Photography and Film swfreyer@vcu.edu

(804) 828-2162

Program website: arts.vcu.edu/photofilm

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in ceramics Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in fibers Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in furniture design Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in glassworking Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in jewelry/metalworking

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in kinetic imaging Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in painting Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in printmaking Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in sculpture

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in photography and film			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.F.A.	entry:		None
	Fall	Jan 15	
		is program. See arts.vci	ı.edu/admissions/how-

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the requirements listed on the website above.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The mission of the M.F.A. in Fine Arts with a concentration in photography and film is to facilitate a comprehensive, advanced, intellectual and artistic understanding and use of the mediums of photography and filmmaking. The specific goals of the program are as follows: to foster a climate that inspires creativity, intellectual curiosity, freedom of expression and critical thinking; to attract and sustain a faculty of the highest quality by providing an environment conducive to their achieving and maintaining national and international stature; and to attract highly artistic and intelligent individuals interested in advanced study of the medium.

Student learning outcomes

- Students will demonstrate a familiarity with contemporary critical theory and an ability to apply and investigate those ideas in their work.
- Students will gain and display advanced skills in conceptual and technical use of the medium
- Students will be able to create photographs and films that display an advanced level of intelligence and artistic vision.

Degree requirements

The advanced study of photography and film is both broad and varied. Therefore, the program's requirements are flexible and determined by the needs of each student on an individual basis. There are, however, a few definite requirements. In addition to general VCU Graduate School graduation requirements, on completion of the program, students must have knowledge of contemporary art history, a more in-depth knowledge of the history of their disciplines and an understanding of the critical dialogue that is connected with their medium. Courses are suggested for students to meet these requirements, based on their backgrounds.

Curriculum requirements

	nour
PHTO 601 Photographic Studio (3 or 6 credit hours, may be repeated)	24
PHTO 621 Research in Photography and Film (3 or 6 credit hours, may be repeated)	9
PHTO 690 Seminar in Photography and Film (3 credit hours, may be repeated)	12
PHTO 699 Graduate Exhibition (1 or 3 credit hours, may be repeated)	3
Approved electives (see list below)	12

Courses

Total graduate credit hours required (minimum) 60

Approved electives (other courses maybe approved by department; upon request):

ARTS 601, 602 Seminar in Art	3, 3
CRAF 690 Graduate Seminar	1 or 3
ENGL 671 Film and Television Scripts	3
GSWS 691 Topics in Gender, Sexuality and Women's Studies	1-3
KINE 690 Graduate Seminar (with permission of graduate adviser)	4
KINE 695 Advanced Sound	3
PAPR 525 Issues in Contemporary Visual Arts	3
PAPR 527, 528 Art and Critical Theory	3, 3
PAPR 591 Topics in Painting and Printmaking	1-4
PAPR 615 Graduate Printmaking	3 or 6
PAPR 690 Graduate Seminar	1 or 3
PHTO 692 Independent Study in Photography and Film	1-3
PHTO 693 Fieldwork, Internship	3 or 6
PHTO 699 Graduate Exhibition	1 or 3
SCPT 591 Topics in Sculpture	1-4
SCPT 690 Graduate Seminar	4
THEA 603 Dramatic Literature and Theory	3
THEA 604 Modern Theatre: Theory and Practice	3

Credit

THEA 661, 662 Graduate Direction 3, 3
THEA 791 Seminar in Special Issues in Theatre 1-3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of Sculpture and Extended Media

The Department of Sculpture and Extended Media's eight full-time faculty members and various part-time and technical faculty represent a spectrum of directions and philosophical attitudes. Faculty interests range from formal to conceptual, from the concrete to the evanescent. This breadth of interests is presented to students and contributes to the comprehensive nature of our department. Students are not only exposed to traditional sculpture media, but encouraged to explore technology's parameters and to pursue interdiscipliary activity.

We encourage sculpture students to broaden their experience in other areas. By promoting a curriculum that encourages students to take a wide range of courses throughout the university, we stress links between art, science, the humanities and the world. As a consequence, sculpture students have rich, productive associations with professors in many fields.

Sculpture students are challenged to exploit their full potential by questioning notions of contemporary art. Our goal is to provide students with the vocabulary, the seeds of discernment and the skills of both analysis and synthesis in order to become participants in the dialogue of our time. All of this takes place in an environment of high expectation regarding self-motivation, intellectual capacity and responsibility.

The sculpture program is housed in a state-of-the-art facility. Sculpture majors are provided with semi-private, locked studio spaces and are given time, support and encouragement to pursue their independently determined goals.

Administration

Carlton Newton

Associate Professor and Interim Department Chair sculpture@vcu.edu

www.vcu.edu/arts/sculpture

Sculpture and extended media courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to sculpture and extended media (SCPT) courses.

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in sculpture

Program accreditation

National Association of Schools of Art and Design

Graduate program director

Carlton R. Newton

Associate professor and interim chair, Department of Sculpture and Extended Media

sculpture@vcu.edu (804) 828-1511

Program website: arts.vcu.edu/sculpture

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in ceramics Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in fibers

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in furniture design

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in glassworking

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in jewelry/metalworking

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in kinetic imaging Fine Arts. Master of Fine Arts (M.F.A.) with a concentration in painting

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in photography and film

Fine Arts, Master of Fine Arts (M.F.A.) with a concentration in printmaking

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements
M.F.A.	entry:		None
	Fall	Jan 15	

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the requirements listed on the website above. Additionally:

- 1. Applicants should hold a baccalaureate degree from an accredited institution.
- 2. It is expected that applicants will have a 3.0 (B) average on the last 60 semester hours of undergraduate work.
- 3. A portfolio review is required. A personal interview is encouraged.
- Applicants must have completed a minimum of 36 credit hours of art at the undergraduate level.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

Formal and informal contact with faculty is designed into the program. Along with the Department of Sculpture's faculty, graduate students are exposed to a vigorous visiting artist schedule. Through studio reviews, seminars and research, students are expected to build an awareness of contemporary and historical definitions of art that will influence their creative work. In addition to their own investigations, graduate students participate in and contribute to the undergraduate program. While the graduate program is generally a two-year, four-semester in-residence program, students are expected to continue studio pursuits either on campus or at an alternative site throughout the calendar year.

Student learning outcomes

- 1. Define work in relation to history
- Take full advantage program resources
- 3. Develop knowledge of equipment and techniques
- 4. Develop professional practices

Degree requirements

In addition to general VCU Graduate School graduation requirements, the M.F.A. in Fine Arts with a concentration in sculpture requires 60 credit hours and is usually completed in two years of full-time study. Most of these credit hours are in studio areas and are augmented by related courses in specialized academic fields. A graduate seminar meets weekly and addresses topics related to contemporary art and theory. Two required semesters of art and critical theory are presented in a course that surveys the major themes of contemporary art criticism.

Graduate students meet with individual committees composed of three faculty members. Each committee and student conducts an ongoing dialogue and critique. At the end of the second semester, students discuss their work at a candidacy critique comprising their committee and additional faculty members. M.F.A. recipients mount a comprehensive exhibition of their work at the university's Anderson Gallery at the successful conclusion of the program's second year.

The Master of Fine Arts program is based on intensive studio practice at an advanced level in the area of sculpture. The program is highly selective and is presently limited to 15 participants.

Curriculum requirements

Courses	Credit hours	
SCPT 500 Graduate Sculpture	16	
SCPT 600 Graduate Sculpture	16	
SCPT 690 Graduate Seminar*	16	
Electives** (see note below)	12	

Total graduate credit hours required (minimum)

60

Typical plan of study

Courses	Credit hours
First semester	
SCPT 500 Graduate Sculpture	4
SCPT 600 Graduate Sculpture	4
SCPT 690 Graduate Seminar*	4
Elective** (see note below)	3
Second semester	
SCPT 500 Graduate Sculpture	4
SCPT 600 Graduate Sculpture	4

SCPT 690 Graduate Seminar*	4
Elective** (see note below)	3
Third semester	
SCPT 500 Graduate Sculpture	4
SCPT 600 Graduate Sculpture	4
SCPT 690 Graduate Seminar*	4
Elective** (see note below)	3
Fourth semester	
SCPT 500 Graduate Sculpture	4
SCPT 600 Graduate Sculpture	4
SCPT 690 Graduate Seminar*	4
Elective** (see note below)	3

Total graduate credit hours required (minimum)

collment in the graduate seminar is mandatory for the duration of the student

60

- * Enrollment in the graduate seminar is mandatory for the duration of the student's study in the program.
- ** Any graduate-level course within the university with approval of the student's adviser

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of Theatre

The mission of the Department of Theatre is to educate and train students as theatre professionals and/or academicians in the field of performance, design/technology or theatre pedagogy.

In fulfilling its mission, the Department of Theatre provides students with the professional and cultural foundations essential for achieving the highest standards of the art. The department offers three degrees — a Bachelor of Arts, a Bachelor of Fine Arts and a Master of Fine Arts — to which applicants are admitted based on demonstration of ability, genuine interest determined during an interview, and audition and/or portfolio presentation.

In addition to introductory theatre and acting courses for non-majors, the department also serves students throughout the university with offerings in speech communication.

The Department of Theatre employs 23 faculty and staff and enrolls 230 undergraduate and 40 to 50 full-time graduate students. Theatre VCU produces four mainstage productions and numerous graduate and undergraduate directing projects each year.

Administration

David Leong

Professor and Department Chair www.vcu.edu/arts/theatre

Aaron Anderson

Assistant Chair and Director of Undergraduate Studies

Theatre courses

With permission of instructor, the following graduate courses may be taken by undergraduates for degree credit: THEA 501-502, THEA 505-506, THEA 508 and THEA 513-514. Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level. Unless otherwise indicated, courses must be taken in numerical sequence.

The Department of Theatre offers courses in the following areas:

Use this link to see theatre (THEA) courses.

Use this link to see theatre laboratory (THEZ) courses.

Use this link to see speech (SPCH) courses.

Theatre, Master of Fine Arts (M.F.A.) with a concentration in costume design

Program accreditation

National Association of Schools of Theatre

Graduate program director

Noreen C. Barnes, Ph.D. Director of graduate studies, Department of Theatre nbarnesm@vcu.edu (804) 827-1677

Additional contacts

Aaron D. Anderson, Ph.D. Associate chair, Department of Theatre adanderson@vcu.edu (804) 828-2697

Toni-Leslie James Head of costume design tljames@vcu.edu (804) 828-1514

Program website: arts.vcu.edu/theatre

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Theatre, Master of Fine Arts (M.F.A.) with concentration in pedagogy/literature Theatre, Master of Fine Arts (M.F.A.) with concentration in pedagogy/performance

Theatre, Master of Fine Arts (M.F.A.) with concentration in stage design/technical theatre

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Theatre, Master of Fine Arts (M.F.A.) with a concentration in costume design			
Degree: M.F.A.	Semester(s) of entry: Fall	Deadline dates:	Test requirements: None
Special requir	ements:	Feb 15 (suggested)	
See arts.vcu.ed	u/admissions/how-to-apply	for details on the appli	cation process.

In addition to the general admission requirements of the VCU Graduate School, applicants must possess a bachelor's degree (theatre preferred). Students must present a portfolio of design work (both project and realized designs) as part of their application to the program. Professional experience will be considered. The program provides preparation for early to midcareer professionals to enter the field of either professional design or teaching theatre at the college/university level.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The M.F.A. in Theatre offers concentrations in stage design/technical theatre and costume design, which comprise the professional option, and in literature and performance, which make up the pedagogy option. Focus areas in pedagogy include movement, performance, and voice and speech.

Student learning outcomes

The M.F.A. degree prepares students to either enter the professional field of design or to teach at the college or university level. Students will demonstrate theoretical and practical knowledge in their areas of focus, as well as in the core courses in history, literature and theory; and in teaching performance or production. They will be evaluated on their ability to teach undergraduates, a final thesis project and approval of a professional-quality design, presentation or publishable article.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to take 60 credit hours of graduate-level course work distributed among core courses, area of concentration and electives, including special topics courses. The program is usually completed within two to three years.

Costume design concentration

The costume design concentration's degree requirements include 12 credit hours in core courses, 12 to 18 credit hours in (level-appropriate) design studio and three to six credit hours of thesis/thesis project. The balance of credit hours will be in approved electives, which may include additional practica, research and production, or professional internships. Students will take practical courses and assist faculty in teaching and design projects. They may be advised to take additional history or drawing courses to ensure that they possess the background required for advanced design projects. Their design skills and professional preparation will be evaluated by the faculty through portfolio presentations and participation at professional conferences.

Curriculum requirements

Courses	Credit hours
Core curriculum	18

THEA 509 Theatre History

3

THEA 510 Theatre Historiography	3
THEA 603 Dramatic Literature and Theory	3
THEA 604 Modern Theatre: Theory and Practice	3
Concentration requirements	12-18
THEA 508 Scene Painting	3
THEA 593 Professional Internship	3
THEA 621 Problems in Costume Design	3
THEA 622 Problems in Costume Design	3
THEA 630 Production	3
THEA 640 Advanced Theatre Projects	3
THEA 641 Advanced Theatre Projects	3
Electives	24-30
Electives Recommended electives (Some courses may be repeated with permission of the graduate program director.):	24-30
Recommended electives (Some courses may be repeated with	24-30 6
Recommended electives (Some courses may be repeated with permission of the graduate program director.):	2.00
Recommended electives (Some courses may be repeated with permission of the graduate program director.): THEA 605-606 Advanced Studies in Stage Design	6
Recommended electives (Some courses may be repeated with permission of the graduate program director.): THEA 605-606 Advanced Studies in Stage Design THEA 651 Individual Study in Graduate Design	6 3
Recommended electives (Some courses may be repeated with permission of the graduate program director.): THEA 605-606 Advanced Studies in Stage Design THEA 651 Individual Study in Graduate Design THEA 791 Seminar in Special Issues in Theatre	6 3 3
Recommended electives (Some courses may be repeated with permission of the graduate program director.): THEA 605-606 Advanced Studies in Stage Design THEA 651 Individual Study in Graduate Design THEA 791 Seminar in Special Issues in Theatre Thesis or thesis project	6 3 3

Sample plan of study

Courses	Credit hours
First semester	12
Core course – general (THEA 509, 510, 603, 604)	3
THEA 621 Problems in Costume Design	3
THEA 630 Production	3
Elective	3
Second semester	12
Core course – general (THEA 509, 510, 603, 604)	3
THEA 622 Problems in Costume Design	3
THEA 641 Advanced Theatre Projects	3
Elective	3
Third semester	12
Core course – general (THEA 509, 510, 603, 604)	3
THEA 508 Scene Painting	3
THEA 621 Problems in Costume Design	3
THEA 651 Individual Study in Graduate Design	3
Fourth semester	12
Core course – general (THEA 509, 510, 603, 604)	3
THEA 508 Scene Painting	3
THEA 622 Problems in Costume Design	3
THEA 630 Production	3
Fifth semester	9
THEA 640 Advanced Theatre Projects	3
THEA 698 Creative Project	3
Elective (special topics or art history)	3
Sixth semester	9
THEA 593 Professional Internship	3

THEA 641 Advanced Theatre Projects	3
THEA 699 Creative Project Evaluation or THEA 799 Thesis	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Theatre, Master of Fine Arts (M.F.A.) with a concentration in pedagogy/literature

Program accreditation

National Association of Schools of Theatre

Graduate program director

Noreen C. Barnes, Ph.D.

Director of graduate studies, Department of Theatre

nbarnesm@vcu.edu

(804) 827-1677

Additional contact

Aaron D. Anderson, Ph.D.

Associate chair, Department of Theatre

adanderson@vcu.edu

(804) 828-2697

Program website: arts.vcu.edu/theatre

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Theatre, Master of Fine Arts (M.F.A.) with concentration in costume design Theatre, Master of Fine Arts (M.F.A.) with concentration in pedagogy/performance

Theatre, Master of Fine Arts (M.F.A.) with concentration in stage design/technical theatre

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Theatre, Master of Fine Arts (M.F.A.) with a concentration in pedagogy/literature			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.F.A.	Fall	Feb 15 (suggested)	None

See arts.vcu.edu/admissions/how-to-apply for details on the application process. Interview

In addition to the general admission requirements of the VCU Graduate School, applicants must possess a bachelor's degree (theatre preferred). Students must present a portfolio of design work (both project and realized designs) as part of their application to the program. Professional experience will be considered. The program provides preparation for early to midcareer professionals to enter the field of either professional design or teaching theatre at the college/university level.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

> General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The M.F.A. in Theatre offers concentrations in stage design/technical theatre and costume design, which comprise the professional option, and in literature and performance, which make up the pedagogy option. Focus areas in pedagogy include movement, performance, and voice and speech.

Student learning outcomes

The M.F.A. degree prepares students to either enter the professional field of design or to teach at the college or university level. Students will demonstrate theoretical and practical knowledge in their areas of focus, as well as in the core courses in history, literature and theory; and in teaching performance or production. They will be evaluated on their ability to teach undergraduates, a final thesis project and approval of a professional-quality design, presentation or publishable article.

Degree requirements

In addition to general Graduate School graduation requirements, students are required to take 60 credit hours of graduate-level course work distributed among core courses, area of concentration and electives, including special topics courses. Students will also be evaluated on performance projects, production work and teaching. The program is usually completed within two to three years.

Pedagogy/literature concentration

Requirements of the pedagogy/literature concentration include 18 credit hours in core courses (including theatre pedagogy and production), 12 credit hours in the focus area and six credit hours of thesis/thesis project. The balance of credit hours will be in approved electives, which may include additional practica, research and production, or teaching internships. Students take four to six courses in their areas of concentration and additional related courses in performance (or in MATX/ English courses). Students will take practical courses and assist faculty in

teaching. Their teaching effectiveness will be evaluated by area faculty. Students will also have assignments as dramaturges for both departmental and outside productions.

Curriculum requirements

Courses	Credit hours
Core curriculum	18
THEA 509 Theatre History THEA 510 Theatre Historiography THEA 603 Dramatic Literature and Theory THEA 604 Modern Theatre: Theory and Practice THEA 619 Teatre pedagogy THEA 640 Advanced Theatre Projects	3 3 3 3 3
Concentration requirements	12-18
THEA 640, 641 Advanced Theatre Projects THEA 693 Colloquium and Practical Training THEA 696 Dramaturgy THEA 697 Research and Special Problems in Theatre	3, 3 3-9 3
Electives	24-30
Recommended electives (Students are encouraged to take electives in all areas of pedagogy, in addition to their focus area. Some courses may be repeated with permission of the graduate program director.): MATX 601 Texts and Textuality THEA 593 professional Internship THEA 623, 624 Advanced Studies in Modern Drama THEA 630 Production THEA 641 Advanced Theatre Projects THEA 791 Seminar in Special Issues in Theatre Thesis or thesis project THEA 699 Creative Project Evaluation or THEA 799 Thesis	3 3 3,3 3 3 3 3-6
Total graduate credit hours required (minimum)	60
Sample plan of study	
Courses	Credit hours
First semester Core course - general (THEA 509, 510, 603, 604) THEA 640 Advanced Theatre Projects THEA 693 Colloquium and practical Traning (observation/assisting in undergraduate theatre history/dramatic literature course) THEA 697 Research and Special Problems in Theatre Elective	15 3 3 3 3 3
Second semester	15
Core course - general (THEA 509, 510, 603, 604) THEA 593 Professional Internship or THEA 693 Colloquium and Practical Training (observation/assisting in undergraduate theatre history/dramatic literature course) THEA 641 Advanced Theatre Projects	3 3
THEA 641 Advanced Theatre Projects THEA 696 Dramaturgy Elective	3 3 3

Option: summer course(s)	3-6
THEA 619 Theatre pedagogy and/or core requirement	3-6
Third semester	15
Core course - general (THEA 509, 510, 603, 604)	3
THEA 619 Theatre Pedagogy	3
THEA 693 Colloquium and Practical Training or professional internship	6
Elective	3
Fourth semester	12
Core course - general (THEA 509, 510, 603, 604)	3
THEA 698 Creative Project, THEA 699 Creative Project Evaliuation or THEA 799 Thesis	3-6
Electives	6
Total graduate credit hours required (minimum)	60

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Theatre, Master of Fine Arts (M.F.A.) with a concentration in pedagogy/performance

Program accreditation

National Association of Schools of Theatre

Graduate program director

Noreen C. Barnes, Ph.D.
Director of graduate studies, Department of Theatre
nbarnesm@vcu.edu
(804) 827-1677

Additional contact

Aaron D. Anderson, Ph.D. Associate chair, Department of Theatre adanderson@vcu.edu (804) 828-2697

Program website: arts.vcu.edu/theatre

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Theatre, Master of Fine Arts (M.F.A.) with concentration in costume design Theatre, Master of Fine Arts (M.F.A.) with concentration in pedagogy/literature Theatre, Master of Fine Arts (M.F.A.) with concentration in stage design/technical theatre

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.F.A.	Fall	Feb 15 (suggested)	None

In addition to the general admission requirements of the VCU Graduate School, applicants must possess a bachelor's degree (theatre preferred). Students must present a portfolio of design work (both project and realized designs) as part of their application to the program. Professional experience will be considered. The program provides preparation for early to midcareer professionals to enter the field of either professional design or teaching theatre at the college/university level.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The M.F.A. in Theatre offers concentrations in stage design/technical theatre and costume design, which comprise the professional option, and in literature and performance, which make up the pedagogy option. Focus areas in pedagogy include movement, performance, and voice and speech.

Student learning outcomes

The M.F.A. degree prepares students to either enter the professional field of design or to teach at the college or university level. Students will demonstrate theoretical and practical knowledge in their areas of focus, as well as in the core courses in history, literature and theory; and in teaching performance or production. They will be evaluated on their ability to teach undergraduates, a final thesis project and approval of a professional-quality design, presentation or publishable article.

Degree requirements

In addition to general Graduate School graduation requirements, students are required to take 60 credit hours of graduate-level course work distributed among core courses, area of concentration and electives, including special topics courses. Students will also be evaluated on performance projects, production work and teaching. The program is usually completed within two to three years.

Pedagogy/performance concentration

Requirements of the pedagogy/performance concentration include 18 credit hours in core courses (including theatre pedagogy and production), 12 to 15 credit hours in a focus area (voice and speech, performance, or movement) and six credit hours of thesis/thesis project. The remainder of the program consists of approved elective courses. Students will take practical courses and assist faculty in teaching. Their teaching effectiveness will be evaluated by area faculty.

Curriculum requirements

Courses	Credit hours
Core curriculum	18
THEA 509 Theatre History	3
THEA 510 Theatre Historiography	3
THEA 603 Dramatic Literature and Theory	3
THEA 604 Modern Theatre: Theory and Practice	3
THEA 619 Theatre Pedagogy	3
THEA 640 Advanced Theatre Projects	3
Concentration requirements	12-15
THEA 501 Basic Voice and Speech Pedagogy	3
THEA 502 Basic Voice and Speech Pedagogy With Application to Dialect Study	3
THEA 513-514 Graduate Acting	3-6
THEA 517 Physical Acting	3
THEA 518 The Pedagogy of Movement	3
THEA 601 Advanced Voice and Speech Pedagogy: Shakespeare	3
THEA 602 Advanced Topics in Voice and Speech Pedagogy	3
THEA 613 Advanced Problems in Acting	3
THEA 614 Pedagogy of Acting	3
THEA 617 Special Topics in Physical Acting	3
THEA 618 Special Topics in Choreography and Directing	3
THEA 640 Advanced Theatre Projects	3
THEA 641 Advanced Theatre Projects	3
THEA 661, 662 Graduate Directing	3-6
Electives	24-30
Recommended electives (Students are encouraged to take electives in all areas of pedagogy, in addition to their focus area. Some courses may be repeated with permission of the graduate program director.):	
THEA 593 Professional Internship	3
THEA 630 Production	3
THEA 641 Advanced Theatre Projects	3
THEA 693 Colloquium and Practical Training	3
THEA 697 Research and Special Problems in Theatre	3
THEA 791 Seminar in Special Issues in Theatre	3
Thesis or thesis project	6
THEA 698 Creative Project, THEA 699 Creative Project Evaluation or THEA 799 Thesis	6
Total graduate credit hours required (minimum)	60
Sample plan of study	
	Credit
Courses	hours

First semester	15
Core course - general (THEA 509, 510, 603, 604)	3
THEA 501 Basic voice and Speech Pedagogy	3
THEA 640 Advanced Theatre Projects	3
THEA 693 Colloquium and Practical Training (observation/assisting in undergraduate theatre history/dramatic literature course)	3
Elective	3
Second semester	15
Core course - general (THEA 509, 510, 603, 604)	3
THEA 502 Basic Voice and Speech Pedagogy With Application to Dialect Study	3
THEA 641 Advanced Theatre Projects	3
THEA 693 Colloquium and Practical Training (observation/assisting in undergraduate theatre history/dramatic literature course)	3
Elective	3
Option: summer course(s)	3-6
THEA 619 Theatre pedagogy or core requirement	3-6
Third semester	15
Core course - general (THEA 509, 510, 603, 604)	3
THEA 601 Advanced Voice and Speech Pedagogy: Shakespeare	3
THEA 619 Theatre Pedagogy	3
Practicum or professional internship	3-6
Elective	3
Fourth semester	15
Core course - general (THEA 509, 510, 603, 604)	3
THEA 602 Advanced Topics in Voice and Speech Pedagogy	3
THEA 698 Creative Project, THEA 699 Creative Project Evaluation or THEA 799 Thesis	3
Elective	3
Total graduate credit hours required (minimum)	60

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Theatre, Master of Fine Arts (M.F.A.) with a concentration in stage design/technical theatre

Program accreditation

National Association of Schools of Theatre

Graduate program director

Noreen C. Barnes, Ph.D. Director of graduate studies, Department of Theatre nbarnesm@vcu.edu (804) 827-1677

Additional contacts

Aaron D. Anderson, Ph.D. Associate chair, Department of Theatre adanderson@vcu.edu (804) 828-2697

Ron Keller Head of design rkeller@vcu.edu (804) 827-2445

Program website: arts.vcu.edu/theatre

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Theatre, Master of Fine Arts (M.F.A.) with concentration in costume design Theatre, Master of Fine Arts (M.F.A.) with concentration in pedagogy/literature Theatre, Master of Fine Arts (M.F.A.) with concentration in pedagogy/performance

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Theatre, Master of Fine Arts (M.F.A.) with a concentration in stage design/technical theatre			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.F.A.	Fall	Feb 15 (suggested)	None

In addition to the general admission requirements of the VCU Graduate School, applicants must possess a bachelor's degree (theatre preferred). Students must present a portfolio of design work (both project and realized designs) as part of their application to the program. Professional experience will be considered. The program provides preparation for early to midcareer professionals to enter the field of either professional design or teaching theatre at the college/university level.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The M.F.A. in Theatre offers concentrations in stage design/technical theatre and costume design, which comprise the professional option, and in literature and performance, which make up the pedagogy option. Focus areas in pedagogy include movement, performance and voice and speech.

Student learning outcomes

The M.F.A. degree prepares students to either enter the professional field of design or to teach at the college or university level. Students will demonstrate theoretical and practical knowledge in their areas of focus, as well as in the core courses in history, literature and theory; and in teaching performance or production. They will be evaluated on their ability to teach undergraduates, a final thesis project and approval of a professional-quality design, presentation or publishable article.

Degree requirements

In addition to general Graduate School graduation requirements, students are required to take 60 credit hours of graduate-level course work distributed among core courses, area of concentration and electives, including special topics courses. The program is usually completed within two to three years.

Stage design/technical theatre concentration

The stage design/technical theatre concentration's degree requirements include 12 credit hours in core courses, 12 to 18 credit hours in (level-appropriate) design studio and three to six credit hours of thesis/thesis project. The balance of credit hours will be in approved electives, which may include additional practica, research and production, or professional internships. Students will take practical courses and assist faculty in teaching and design projects. They may be advised to take additional history or drawing courses to ensure that they possess the background required for advanced design projects. Their design skills and professional preparation will be evaluated by the faculty through portfolio presentations and participation at professional conferences.

Curriculum requirements

Courses	Credit hours
Core curriculum	12
THEA 509 Theatre History	3
THEA 510 Theatre Historiography	3
THEA 603 Dramatic Literature and Theory	3
THEA 604 Modern Theatre: Theory and Practice	3
Concentration requirements	12-18
THEA 505, 506 Advanced Scene Design III, IV	3-6
THEA 508 Scene Painting	3-6
THEA 593 Professional Internship	3
THEA 605-606 Advanced Studies in Stage Design	3-6
THEA 630 Production	3
THEA 640 Advanced Theatre Projects	3
THEA 641 Advanced Theatre Projects	3
THEA 651 Individual Study in Graduate Design	3
Electives	24-30
Recommended electives (Some courses may be repeated with permission of the graduate program director.):	
THEA 621, 622 Problems in Costume Design	3, 3
THEA 651 Individual Study in Graduate Design	3

THEA 791 Seminar in Special Issues in Theatre	3
Thesis or thesis project	3-6
THEA 699 Creative Project Evaluation or THEA 799 Thesis	3-6
Total graduate credit hours required (minimum)	60

Sample plan of study

Courses	Cr	edit hour
First semester		12
Core course - general (THEA 509, 510, 603, 604)	3	
THEA 505 Advanced Scene Design III	3	
THEA 630 Production	3	
Elective	3	
Second semester		12
Core course - general (THEA 509, 510, 603, 604)	3	
THEA 506 Advanced Scene Design IV	3	
THEA 508 Scene Painting	3	
THEA 641 Advanced Theatre Projects	3	
Third semester		12
Core course - general (THEA 509, 510, 603, 604)	3	
THEA 508 Scene Painting	3	
THEA 605 Advanced Studies in Stage Design	3	
THEA 651 Individual Study in Graduate Design	3	
Fourth semester		12
Core course - general (THEA 509, 510, 603, 604)	3	
THEA 508 Scene Painting	3	
THEA 606 Advanced Studies in Stage Design	3	
THEA 630 Production	3	
Fifth semester		9
THEA 640 Advanced Theatre Projects	3	
THEA 698 Creative Project	3	
Elective (special topics or art history)	3	
Sixth semester		9
THEA 593 Professional Internship	3	
THEA 641 Advanced Theatre Projects	3	
THEA 699 Creative Project Evaluation or THEA 799 Thesis	3	

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



School of the Arts in Qatar

P.O. Box 8095 Doha, Qatar (+974) 492 7200 Fax: (+974) 480 5432

www.qatar.vcu.edu

Funded by the Qatar Foundation for Education, Science and Community Development

Allyson Vanstone

Professor of Graphic Design and Dean

Line Christiansen

Interim Associate Dean for Academic Affairs

Valerie Jeremijenko

Assistant Dean for Student Affairs

Founded in 1998 as a collaboration between the Qatar Foundation for Education, Science and Community Development and Virginia Commonwealth University School of the Arts, the School of the Arts in Qatar offers the baccalaureate degrees in art history, fashion design, graphic design, interior design, and painting and printmaking. Its purpose is to provide special educational opportunities preparing graduates for leadership roles in the design professions. Courses emulate those offered on VCU's Monroe Park Campus. Graduates are prepared for exciting careers in these growing fields.

VCU School of the Arts obtained the appropriate approvals from the VCU Board of Visitors and the State Council of Higher Education for Virginia and admitted the first class to what would become VCU School of the Arts in Qatar in fall 1998. The State Council of Higher Education for Virginia approved the request in April 2001 and forwarded its recommendation to the Governor and General Assembly. The 2002 General Assembly adopted legislation authorizing VCU to establish a campus in Qatar.

Design, Master of Fine Arts (M.F.A.) with a concentration in design studies [VCUQatar Campus]

Program accreditation

National Association of Schools of Art and Design

Graduate program director

Thomas H. Modeen, Ph.D., A.A. Dipl. M.Phil. (RCA) B.F.A. S.A.F.A. Assistant professor and acting director

thmodeen@vcu.edu

+974 4402 0739

Additional contact

Rebecca David Administrative assistant erebecca@vcu.edu +974 4402 0735

Program website: qatar.vcu.edu/mfa

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Design, Master of Fine Arts (M.F.A.) with a concentration in interior environments – post-professional option

Design, Master of Fine Arts (M.F.A.) with a concentration in interior environments – professional entry-level option

Design, Master of Fine Arts (M.F.A.) with a concentration in visual communications

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Design, Master of Fine Arts (M.F.A.) with a concentration in design studies – VCUQatar Campus			
Degree: M.F.A.	Semester(s) of entry:	Deadline dates:	Test requirements: TOEFL: 570 (paper-
	Fall	Feb 1	based), 230 (computer-based) or 88 (Internet-based)

In addition to the general admission requirements of the VCU Graduate School, applicants must submit the following documentation and meet the following requirements:

- 1. A brief statement of intent that addresses:
 - a. The reason for graduate study in design studies
 - How previous studies and experiences have prepared the applicant for the M.F.A. program
 - c. Career objectives and how the M.F.A. program relates to them
- 4. A digital portfolio of visual or written work that includes:
 - Samples of relevant work that show creative thinking, idea development and visualization skills
 - b. Works that support the ideas shared in the statement of intent
 - c. No more than 20 individual works
- 4. A prepared presentation (for individuals selected for the interview)
- 5. A resume that highlights the applicant's previous experiences and studies as they relate to graduate study at VCUQatar
- Three letters of recommendation from former professors, teachers, mentors or supervisors familiar with the applicant's academic and/or professional ability and aptitude toward graduate study

Note: In the VCUQatar portfolio system, applicants are able to send an online form to each recommender. Alternatively, the applicant can deliver a printed recommendation letter to the Admissions Office. Download a recommendation template to use.

- Official academic transcripts (secondary and postsecondary) for all university studies
 - a. Submit officially certified copies of all academic diplomas, certificates, national and other major examination results. Transcripts in languages other than English must also include a certified English translation. Transcript(s) must be properly sealed and stamped by the issuing institution and must be delivered to VCUQatar Admissions Office either by hand or post.
 - The address on the official online application Confirmation Page will list a Richmond, VA address for supporting materials, but all documents should be sent to the VCUQatar Admissions Office.
- For applicants whose first language is a language other than English, an English language proficiency test with the following minimum requirements:
 - a. TOEFL: 570 (paper-based), 230 (computer-based) or 88 (Internet-based)
 - b. IELTS: 6.5

Note: Test scores must be sent electronically by the testing center. The TOEFL code for admission testing to VCUQatar is 5570. There is no code for IELTS.

The English language proficiency tests and standardized testing (TOEFL, SAT, ACT and IELTS) can be taken at the QF Test Center in Education City. Please visit the test center's website to see the latest dates.

A legible copy of the applicant's passports uploaded using the online application A non-refundable application fee of \$50 (US) or QAR183 for each M.F.A. application (This can be paid by credit card when submitting the online application form or at the VCUQatar's Cashier Office.)

Important reminders

- All admission supporting materials (excluding exam scores and transcripts)
 must be uploaded electronically using the VCUQatar online application
 process at https://ssb.vcu.edu.
- Original, official TOEFL/IELTS score reports must be sent to VCUQatar via courier or delivered in person to the Admissions Office.
- Applicants must ensure that letters of recommendation reach the office using either the VCUQatar portfolio application system or the downloadable template.
- d. Only complete applications will be considered for assessment.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Mission statement

The M.F.A. in Design with a concentration in design studies defines and inhabits an area between design disciplines. The purpose of the program is to produce designers who are experts at negotiating and utilizing elements of many different fields to construct new tailored experiences.

Tomorrow's designers must be able to understand their audiences, collaborators and patrons in original and authentic ways. Global cultures already experience design in a singular fashion. The practices at VCUQ combine graphics, interaction, engineering, systems, architecture, fashion and product design into a merged experience. Designers who are able to work outside their individual discipline will be at an advantage. The designers of the future will need to navigate between forms of practice, combining elements and skills to create new products, visuals, environments and interactions.

VCUQ is looking for creative, motivated, hardworking, self-directed individuals willing to engage with challenging topics. The program sets high demands on its students, requiring them to familiarize and grasp the myriad of variables involved in meaningful design, while simultaneously having the discipline and rigor to formulate their own assessment of what being a designer — in all its guises — entails today.

Students in this program should be able to question; be open to explore and experiment; stay true to ethical foundations; lead and be bold, while being open and flexible to adjust to shifting paradigms. The school strives to expose students to a variety of tools, materials and methods, while providing the theoretical background and research methodologies that will allow each student to develop their own unique ideas.

The M.F.A. in Design with a concentration in design studies celebrates the amorphous notion of what is called "empirical vagueness," a term that encapsulates the simultaneously analytical, yet intuitive, fashion in which a design endeavor is developed. Students, alumni and faculty all play a role in exploring and fostering this as an essential, if inherently open-ended, calling.

Program goals

- Creative leadership: Students will achieve mastery in creative leadership, with the skills and knowledge needed to achieve success as design professionals and entrepreneurs, educators, and researchers, and they will be able to creatively engage with the broad design community to bring added value to the regional economy, society and culture.
- 2. Integrated research: Students will integrate practice and theory to ensure the highest level of critical knowledge and to make meaningful contributions to pedagogy and teaching in the design disciplines. The program provides increased focus and visibility for individual and collaborative research activity that has an applied focus.
- Interdisciplinary emphasis: Students will achieve high levels of creativity, literacy and knowledge across the design disciplines.
- 4. Community impact: Students will engage and raise social awareness.
- 5. Career development: The program will develop graduates with skills and knowledge to make meaningful contributions to pedagogy and teaching in the design disciplines. It also will provide opportunities that encourage students to engage and present their work in connection with the professional world.

Student learning outcomes

- Students will demonstrate the ability to effectively communicate in speech about their research and studio activities.
- Students will demonstrate the ability to effectively communicate in writing about their research and studio activities.
- Students will demonstrate the ability to practice lifelong learning by dealing with new forms of design practice and other changes in the discipline.
- Students will demonstrate the ability to integrate ideas from historical, social and cultural movements; from policies and theories; and from the dynamics of historical, social and cultural change.
- Students will demonstrate the ability to apply appropriate technologies to projects in their field.
- Students will demonstrate the ability to synthesize knowledge from different disciplines to solve design problems.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must meet the following minimum requirements:

- 1. Total of 60 credit hours
- 2. Publication/documentation as specified
- 3. Qualification for degree candidacy
- 4. Thesis and final research project, exhibition and oral defense

Curriculum requirements

Courses	Credit hours
DESI 510 Materials and Methods Studio	3
DESI 511 Studio in Digital Design and Fabrication Technology	3
DESI 512 Studio in Visual Communications	3
DESI 520 Design Research Methodologies	3
DESI 601 Interdisciplinary Design Seminar	3
DESI 605 Design Strategies and Ethics for Business	3
DESI 611 Design Studio One	6
DESI 612 Design Studio Two	6
DESI 613 Design Studio Three	6
DESI 620 Design Thesis Research and Formulation	3
DESI 621 Design Research Studio: Leadership and Entrepreneurship	3
DESI 630 Teaching Practicum in Design or DESI 631 Design Internship	3
DESI 690 Thesis Studio	9

Approved studio electives*

Total graduate credit hours required (minimum)

60

60

6

*Approved electives (six credit hours) may be selected from a variety of 500- and 600-level courses offered at VCUQatar and VCU in Richmond. In addition, students are encouraged to enroll in 500- and 600-level elective courses offered by other accredited universities within Hamad bin Khalifa University in Qatar or any other internationally accredited university. Before taking a course outside of VCU, the student must submit a course syllabus to the M.F.A. in Design program director for approval.

Sample plan of study

Probationary course work may be required prior to gaining full admission to the program. The amount and type of undergraduate course work will be determined at the time of application, and no graduate credit hours will be awarded for this probationary course work. The decision to grant full admission will be based upon successful completion of the required course work.

Courses	Credit hours
First semester	
DESI 511 Studio in Digital Design and Fabrication Technology	3
DESI 520 Design Research Methodologies	3
DESI 601 Interdisciplinary Design Seminar	3
DESI 611 Design Studio One	6
Second semester	
DESI 510 Materials and Methods Studio	3
DESI 512 Studio in Visual Communications	3
DESI 612 Design Studio Two	6
Approved studio elective*	3
Third semester	
DESI 605 Design Strategies and Ethics for Business	3
DESI 613 Design Studio Three	6
DESI 620 Design Thesis Research and Formulation	3
Approved studio elective*	3
Fourth semester	
DESI 621 Design Research Studio: Leadership and Entrepreneurship	3
DESI 630 Teaching Practicum in Design orDESI 631 Design Internship	3
DESI 690 Thesis Studio	9

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Total graduate credit hours required (minimum)

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

 $Student\ Handbook:\ qatar.vcu.edu/images/uploads/documents/MFA-ProgramHandbook.pdf$



2014-15 Graduate and Professional Programs Bulletin

School of Business

Virginia Commonwealth University's School of Business can be traced back to 1917 when a board of private citizens organized the Richmond School of Social Economy for Social Workers and Public Health Nurses. By 1937 the school was called the Richmond Professional Institute, was affiliated with The College of William and Mary, and had added business courses to the curriculum. The school began offering a graduate program in 1962. Since then, the program has continued to develop and mature to meet the needs of the future.

Vision

The vision of the VCU School of Business is to be nationally recognized as the leading technologically focused school of business in the commonwealth of Virginia.

Mission

The mission of the VCU School of Business is to prepare students for successful careers and lifelong learning by providing management education firmly grounded in technology, interdisciplinary teamwork and global perspectives. Essential to achieving this mission is striving to excel in teaching and scholarly research, and to build effective, value-based relationships with the external community.

Administration

301 West Franklin Street P.O. Box 844000 Richmond, Virginia 23284-4000 (804) 828-1595 Fax (804) 828-8884 www.business.vcu.edu

Ed Grier

Dean

David J. Urban

Executive Associate Dean

José Dulá

Interim Associate Dean for Research and Doctoral Studies

Shannon K. Mitchell

Associate Dean for Undergraduate Studies

Jana P. McQuaid

Assistant Dean for Master's Program

William J. Miller

Executive Director, Fast Track Executive M.B.A. Program

Accreditation

The School of Business is accredited by the Association to Advance Collegiate Schools of Business, which accredits programs of professional education in business at the collegiate level. AACSB International accreditation represents the highest standard of achievement for business schools, worldwide. Institutions that earn accreditation confirm their commitment to quality and continuous improvement through a rigorous and comprehensive peer review. AACSB International accreditation is the hallmark of excellence in management education.

The School of Business is the first school of business in the nation to gain accreditation from the Accreditation Board for Engineering and Technology (ABET) for its undergraduate program in information systems.

Financial aid, scholarships and awards Scholarships and awards

In addition to university scholarships, business students may apply and compete for scholarships awarded through School of Business endowed scholarship funds or through the various School of Business academic programs. For detailed information on scholarships and awards, visit the School of Business Web site.

Cooperative Education and internships

Business students are eligible for the university's Cooperative Education Program. Qualified students placed with an employer will either alternate one semester of full-time study with one semester of full-time work or combine study with part-time work during the same semester. The School of Business also offers

internships, allowing advanced students to pursue part-time work assignments with area employers.

Assistantships

The School of Business offers a limited number of graduate assistantships to full-time students for the academic year. For further information, write to the Graduate Studies in Business Office.

Graduate students also are eligible for funds administered under the National Defense Loan and college work-study programs. For further information, write to Director of Financial Aid, Virginia Commonwealth University, Richmond, VA 23284-2526

Graduate information

Graduate programs

The School of Business offers degree programs leading to the Master of Arts in Economics, Master of Accountancy, Master of Business Administration, Master of Business Administration/Master of Science in Information Systems, Master of Science in Business, Master of Science in Information Systems, Master of Taxation, and the Ph.D. in Business and Pharm.D./M.B.A.

Graduate policies

Enrollment in graduate courses

Students may not enroll in any graduate business courses (except MGMT 500) for credit without first being admitted formally to a graduate degree or graduate certificate program.

Exceptions may be granted by the director of graduate studies in business to students with superior academic records. No credit will be given for graduate classes taken prior to acceptance into a graduate degree program in business or economics unless such an exception has been granted. A form to request such an exception is available from the Graduate Studies in Business Office.

A "graduate transient" classification may be granted to a student in good standing in any graduate school accredited by the Association to Advance Collegiate Schools of Business (AACSB) who desires to enroll in the School of Business for any one semester or summer session. Students will be required to present certificates of graduate standing but will not have to submit the data normally required for an admission decision. A form is available from the Graduate Studies in Business Office to facilitate transient enrollment.

Transfer credit

A maximum of six semester hours of acceptable graduate credit earned in a degree program at an AACSB-accredited institution may be transferred and applied toward the graduate degree. Acceptance of transfer credit is made at the discretion of the director of graduate studies in business.

All transfer work must be at the A or B grade level. Students must be in good standing both at VCU and at the institution from which the credits were earned. Additionally, students must have had full admission during the time these credits were earned at that college or university. Transfer credit shall not be older than seven years at the time the degree is awarded.

Credit to be earned at other institutions after acceptance in the graduate program must be approved in advance, and approval is granted at the discretion of the director of graduate studies in business. Such work is approved only under unusual circumstances such as job transfers or other extenuating circumstances.

Advising program

All students admitted to graduate programs are assigned advisers. Students are expected to work with their advisers to plan their graduate programs. Each student is required to complete an approved program form and file it with the Graduate Studies in Business Office no later than the end of the first semester in which the student is admitted. The curriculum plan described on the form must be approved by both the adviser and the director of graduate studies in business. Courses taken without approval are taken at the student's own risk.

Students are responsible for knowing and fulfilling all general and specific requirements relating to the completion of their degree programs. Answers to specific questions may be obtained from the Graduate Studies in Business Office, (804) 828-4622.

Change in program or concentrations

Students who wish to change their graduate programs or areas of concentration within the school must make that request in writing to the director of graduate studies in business. The director will advise them of the necessary requirements and whether the change is possible. The student must be in good standing at the time of change.

Notification

The student should notify in writing both Records and Registration and Graduate Studies in Business, 301 W. Franklin St., P.O. Box 844000, Richmond, VA 23284-4000, of any address changes. Students who do not wish to register in any given semester must notify in writing the Graduate Studies in Business Office of their intent not to register and their plans for continuation in the program.

Student appeals

Appeals for exceptions to policies or academic standards may be made in writing to the Graduate Studies in Business Office, School of Business, Virginia Commonwealth University, 301 W. Franklin St., Richmond, VA 23284-4000.

Individual research projects

Various opportunities exist for students to work closely with faculty on individual research projects. Courses in the School of Business numbered 690, 693 and 697 are suitable for this purpose. No more than one research course may be taken as part of a master's program.

Registration in all research courses requires approval of both the student's adviser and the director of graduate studies in business. Forms for this purpose are available upon request from the Graduate Studies in Business Office. Students are expected to seek permission to register in research courses by the end of the semester or summer session preceding the semester or summer session for which registration is desired. The written research report is required to be filed at the Graduate Studies in Business Office no later than the last day of classes of the semester or summer session in which the course is taken.

General requirements for master's degrees

In addition to the general academic regulations stated in the Graduate Studies at VCU chapter of this bulletin and the regulations listed earlier in this section, master's students in the School of Business are subject to the following requirements:

- A course for which a passing grade was received cannot be repeated without prior written permission of the director of graduate programs in business. An appeal to the School of Business Master's Committee is required.
- Students who satisfy all requirements except the 3.0 average may be allowed
 to take a maximum of six additional credit hours to raise the average.
 Students are required to appeal to the School of Business Master's
 Committee for permission.
- 3. A foundation course may be waived by the director of graduate studies in business, based on satisfactory completion of equivalent undergraduate work prior to acceptance in the program. CLEP credit at the "B" or higher level may be accepted in lieu of foundation courses with permission. The waiver of courses is at the discretion of the School of Business.
- 4. A maximum of two one-year extensions may be granted by the director of graduate studies in business in the time allowed to complete a degree if satisfactory progress has been demonstrated on the part of the student requesting an extension. For extensions, write to the director of graduate programs in business.
- Students are not permitted to take undergraduate courses equivalent to foundation courses once they are admitted to the graduate program without the written permission of the director of graduate studies in business.
- Grades received for undergraduate courses are not included in the calculation of the cumulative graduate GPA.
- All students admitted into a program must have earned a bachelor's degree or its equivalent. To be accepted in the graduate program, in addition to other requirements, applicants must be in good standing at the college or university they previously attended.

School of Business courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

The School of Business offers courses in the following areas:

Use this link to see accounting (ACCT) courses.

Use this link to see e-business (EBUS) courses.

Use this link to see economics (ECON) courses.

Use this link to see finance, insurance and real estate (FIRE) courses.

Use this link to see fast-track M.B.A. (FMBA) courses.

Use this link to see information systems (INFO) courses.

Use this link to see information technology systems (ISTM) courses.

Use this link to see management (MGMT) courses.

Use this link to see marketing (MKTG) courses.

Business Administration, Certificate in (Postbaccalaureate graduate certificate)

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/mba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Certificate in (Post-baccalaureate graduate certificate)			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
Certificate	entry:		
	Fall	Jul 1	
	Spring	Nov 1	
	Summer	Mar 1	

In addition to the general admission requirements of the VCU Graduate School, applicants must have earned a baccalaureate degree or its equivalent from an accredited college or university. This program is intended for students with an undergraduate degree in an area other than business management. Other admission requirements include a minimum undergraduate GPA of 2.7 in at least 60 hours of course work. Work experience is preferred.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the

University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The post-baccalaureate graduate Certificate in Business Administration is designed for professionals with little or no prior business course work who seek an opportunity for advanced study in core business function areas. The certificate provides students the ability to advance their careers while receiving recognition for academic accomplishment in the form of a graduate certificate. By completing the curriculum for the certificate, students will have satisfied the foundation course requirements in the M.B.A. and other master's programs in business.

Student learning outcomes

- To apply communication skills in new and unfamiliar circumstances in a form that can be readily communicated to entry-level, midlevel and seniorlevel managers
- To analyze the ethical dimensions of a business situation, to relate those dimensions to professional ethical standards, and to formulate and defend possible resolutions from the perspective of entry-level managers
- To select, conceptualize and apply appropriate quantitative techniques or approaches in order to analyze business problems for the purpose of decisionmaking by entry-level managers
- 4. To critically evaluate and use accounting and/or other financial information for the purpose of decision-making by entry-level managers

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses. In order to be eligible to receive the certificate, a student must maintain an overall GPA of 3.0. Completion of this graduate certificate program requires 21 credit hours beyond the bachelor's degree. The director of graduate studies in the School of Business may waive up to 12 credit hours based upon equivalent course work completed in the past five years with a minimum grades of B presented. In the event that courses are waived, students must take additional course work to meet the minimum 21 credit-hour requirement. Successful completion of the graduate certificate program does not guarantee admission to a master's-level program. Students interested in applying at a later date to either the M.B.A. or other master's programs must do so through a separate application process.

Curriculum requirements

Courses	Credit hours
Corequisites	
INFO 360 Business Information Systems	3
SCMA 500 Quantitative Foundation for Decision Making	3
Required courses	
ACCT 507 Fundamentals of Accounting	3
ECON 500 Concepts in Economics	3
FIRE 520 Financial Concepts of Management	3
MGMT 540 Management Theory and Practice	3
MKTG 570 Concepts and Issues in Marketing	3
SCMA 524 Statistical Fundamentals for Business Management	3
SCMA 530 Fundamentals of the Legal Environment of Business	3
Total graduate credit hours required (minimum)	21

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.) [Executive]

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Stacey A. Friedl Director, E.M.B.A. program (804) 828-6684

Additional contact

Jana P. McQuaid

Associate dean, master's programs ipmcquaid@vcu.edu

(804) 828-4622

Program website: business.vcu.edu/graduate/emba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.) [Executive] with a concentration in business analytics

Business Administration, Master of (M.B.A.) [Executive] with a concentration in corporate finance

Business Administration, Master of (M.B.A.) [Executive] with a concentration in entrepreneurship and innovation

Business Administration, Master of (M.B.A.) [Executive] with a concentration in global business

Business Administration, Master of (M.B.A.) [Executive] with a concentration in health care management

Business Administration, Master of (M.B.A.) [Executive] with a concentration in information resources management

Business Administration, Master of (M.B.A.) [Executive] with a concentration in investments

Business Administration, Master of (M.B.A.) [Executive] with a concentration in real estate

Business Administration, Master of (M.B.A.) [Executive] with a concentration in supply chain management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.) [Executive]			
Degree: M.B.A.	Semester(s) of entry:	Deadline dates:	Test requirements: GMAT or GRE
	Fall only	Feb 15 (for early decision)	
		Apr 22 (final decision)	

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

VCU's School of Business Executive M.B.A. program provides experienced managers in Virginia and surrounding states with the knowledge and skills needed to solve real-world business problems in today's complex global environment. The Executive M.B.A. program accomplishes this purpose by using a curriculum with an integrated, modular, team-oriented, interdisciplinary approach that constantly challenges students to apply knowledge and skills to new and unfamiliar situations by using a conceptual understanding of relevant business disciplines.

Student learning outcomes

- Demonstrate the capacity from an executive perspective to integrate knowledge-specific information to different business disciplines in helping teams to solve business problems in new and unfamiliar circumstances
- 2. Demonstrate communication knowledge and skills in both technical and interpersonal areas
- 3. Demonstrate an understanding of the ethical and social responsibility of business organizations in the U.S. and in other parts of the world
- 4. Demonstrate analytic skills using new and unfamiliar data sets

Degree requirements

The Executive M.B.A. program is designed for students with familiarity with significant work experience. The student's adviser will review the student's educational and professional background to determine the extent to which the student has satisfied the prerequisites. Those with outstanding prerequisites will be required to attend one or more training sessions to remove any deficiencies.

In addition to the VCU Graduate School graduation requirements, students must complete a minimum of 39 graduate credit hours. The program consists of 13 courses that are divided into seven integrated modules.

Curriculum requirements

Courses	Credit hours
Module 1 FMBA 601 Team Building and Leadership (course 1)	3
FMBA 602 Team Building and Leadership (course 2)	3
Module 2	
FMBA 603 Business Foundations (course 1)	3
Module 3	
FMBA 604 Analysis and Decisions (course 1)	3
FMBA 605 Analysis and Decisions (course 2)	3
FMBA 606 Analysis and Decisions (course 3)	3
Module 4	
FMBA 607 Global Challenges (course 1)	3
Module 5	
FMBA 608 Organizational Culture (course 1)	3
Module 6	
FMBA 609 Productivity and Innovation (course 1)	3
FMBA 610 Productivity and Innovation (course 2)	3
Module 7	
FMBA 611 Strategic Management (course 1)	3
FMBA 612 Strategic Management (course 2)	3
FMBA 613 Strategic Management (course 3)	3

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.) [Executive] with a concentration in business analytics

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Stacey A. Friedl safriedl@vcu.edu Director, E.M.B.A. program (804) 828-6684

Additional contact

Jana P. McQuaid
Associate dean, master's programs
jpmcquaid@vcu.edu
(804) 828-4622

Program website: business.vcu.edu/graduate/emba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.) [Executive]

Business Administration, Master of (M.B.A.) [Executive] with a concentration in corporate finance

Business Administration, Master of (M.B.A.) [Executive] with a concentration in entrepreneurship and innovation

Business Administration, Master of (M.B.A.) [Executive] with a concentration in global business

Business Administration, Master of (M.B.A.) [Executive] with a concentration in health care management

Business Administration, Master of (M.B.A.) [Executive] with a concentration in information resources management

Business Administration, Master of (M.B.A.) [Executive] with a concentration in investments

Business Administration, Master of (M.B.A.) [Executive] with a concentration in real estate

Business Administration, Master of (M.B.A.) [Executive] with a concentration in supply chain management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.) [Executive] with a concentration in business analytics			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.B.A.	entry:		GMAT or GRE
	Fall only	Feb 15 (for early decision)	
		Apr 22 (final decision)	

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty

of the university through their elected representatives to the University Graduate

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

VCU's School of Business Executive M.B.A. program provides experienced managers in Virginia and surrounding states with the knowledge and skills needed to solve real-world business problems in today's complex global environment. The Executive M.B.A. program accomplishes this purpose by using a curriculum with an integrated, modular, team-oriented, interdisciplinary approach that constantly challenges students to apply knowledge and skills to new and unfamiliar situations by using a conceptual understanding of relevant business disciplines.

Student learning outcomes

- Demonstrate the capacity from an executive perspective to integrate knowledge-specific information to different business disciplines in helping teams to solve business problems in new and unfamiliar circumstances
- Demonstrate communication knowledge and skills in both technical and interpersonal areas
- Demonstrate an understanding of the ethical and social responsibility of business organizations in the U.S. and in other parts of the world
- 4. Demonstrate analytic skills using new and unfamiliar data sets

Degree requirements

The Executive M.B.A. program is designed for students with familiarity with significant work experience. The student's adviser will review the student's educational and professional background to determine the extent to which the student has satisfied the prerequisites. Those with outstanding prerequisites will be required to attend one or more training sessions to remove any deficiencies.

In addition to VCU Graduate School graduation requirements, students seeking a concentration must complete a minimum of 48 graduate credit hours. The program consists of 13 courses that are divided into seven integrated modules plus the concentration electives.

Curriculum requirements

Courses	Credit hours
Module 1	
FMBA 601 Team Building and Leadership (course 1)	3
FMBA 602 Team Building and Leadership (course 2)	3
Module 2	
FMBA 603 Business Foundations (course 1)	3
Module 3	
FMBA 604 Analysis and Decisions (course 1)	3
FMBA 605 Analysis and Decisions (course 2)	3
FMBA 606 Analysis and Decisions (course 3)	3

Module 4

FMBA 607 Global Challenges (course 1)	3
Module 5	
FMBA 608 Organizational Culture (course 1)	3
Module 6	
FMBA 609 Productivity and Innovation (course 1)	3
FMBA 610 Productivity and Innovation (course 2)	3
Module 7	
FMBA 611 Strategic Management (course 1)	3
FMBA 612 Strategic Management (course 2)	3
	3
FMBA 613 Strategic Management (course 3)	3
Electives	9
Choose three courses from the following list:	
ECON 612 Econometrics	3
ECON 617 Financial Markets	3
ECON 641 Econometric Time-series Analysis	3
ECON 642 Panel and Nonlinear Methods in Econometrics	3
INFO 614 Data Mining	3
MKTG 673 Marketing Research	3
OPER 528 Stochastic Simulation	3
SCMA 632 Statistical Analysis and Modeling	3
SCMA 643 Applied Multivariate Methods (must have completed	3
SCMA 632)	
SCMA 645 Management Science	3
SCMA 669 Developing and Implementing Forecasting Methods for	3
Business	
SCMA 677 Quality Management and Six Sigma	3
Total graduate credit hours required (minimum)	48
2000 g. uuunu 2. cuit 1. cuit 1 cuit (minimum)	.0

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.) [Executive] with a concentration in corporate finance

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Stacey A. Friedl Director, E.M.B.A. program safriedl@vcu.edu

(804) 828-6684 Additional contact

Jana P. McQuaid

Associate dean, master's programs

jpmcquaid@vcu.edu

(804) 828-4622

Program website: business.vcu.edu/graduate/emba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.) [Executive]

Business Administration, Master of (M.B.A.) [Executive] with a concentration in business analytics

Business Administration, Master of (M.B.A.) [Executive] with a concentration in entrepreneurship and innovation

Business Administration, Master of (M.B.A.) [Executive] with a concentration in global business

Business Administration, Master of (M.B.A.) [Executive] with a concentration in health care management

Business Administration, Master of (M.B.A.) [Executive] with a concentration in information resources management

Business Administration, Master of (M.B.A.) [Executive] with a concentration in investments

Business Administration, Master of (M.B.A.) [Executive] with a concentration in real estate

Business Administration, Master of (M.B.A.) [Executive] with a concentration in supply chain management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.) [Executive] with a concentration in corporate finance			
Degree: M.B.A.	Semester(s) of entry: Fall only	Deadline dates: Feb 15 (for early decision)	Test requirements: GMAT or GRE
		Apr 22 (final decision)	

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

VCU's School of Business Executive M.B.A. program provides experienced managers in Virginia and surrounding states with the knowledge and skills needed to solve real-world business problems in today's complex global environment. The Executive M.B.A. program accomplishes this purpose by using a curriculum with an integrated, modular, team-oriented, interdisciplinary approach that constantly challenges students to apply knowledge and skills to new and unfamiliar situations by using a conceptual understanding of relevant business disciplines.

Student learning outcomes

- Demonstrate the capacity from an executive perspective to integrate knowledge-specific information to different business disciplines in helping teams to solve business problems in new and unfamiliar circumstances
- Demonstrate communication knowledge and skills in both technical and interpersonal areas
- Demonstrate an understanding of the ethical and social responsibility of business organizations in the U.S. and in other parts of the world
- 4. Demonstrate analytic skills using new and unfamiliar data sets

Degree requirements

The Executive M.B.A. program is designed for students with familiarity with significant work experience. The student's adviser will review the student's educational and professional background to determine the extent to which the student has satisfied the prerequisites. Those with outstanding prerequisites will be required to attend one or more training sessions to remove any deficiencies.

In addition to VCU Graduate School graduation requirements, students seeking a concentration must complete a minimum of 48 graduate credit hours. The program consists of 13 courses that are divided into seven integrated modules plus the concentration electives.

Curriculum requirements

Courses	Credit hours
Module 1	
FMBA 601 Team Building and Leadership (course 1)	3
FMBA 602 Team Building and Leadership (course 2)	3
Module 2 FMBA 603 Business Foundations (course 1)	3
Module 3	
FMBA 604 Analysis and Decisions (course 1)	3
FMBA 605 Analysis and Decisions (course 2)	3
FMBA 606 Analysis and Decisions (course 3)	3
Module 4 FMBA 607 Global Challenges (course 1)	3
Module 5 FMBA 608 Organizational Culture (course 1)	3

Module 6	2	
FMBA 609 Productivity and Innovation (course 1)	3	
FMBA 610 Productivity and Innovation (course 2)	3	
Module 7		
FMBA 611 Strategic Management (course 1)	3	
FMBA 612 Strategic Management (course 2)	3	
FMBA 613 Strategic Management (course 3)	3	
Electives	9	
Choose three courses from the following list:		
ECON 617 Financial Markets	3	
FIRE 621 Cases in Financial Management		
FIRE 622 Financial Management of Financial Institutions	3	
FIRE 626 Risk Management	3	
FIRE 639 International Finance	3	
FIRE 654 Short-term Financial Management	3	
Total graduate credit hours required (minimum)		48

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Degree candidacy requirements



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Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.) [Executive] with a concentration in entrepreneurship and innovation

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Stacey A. Friedl

Director, E.M.B.A. program

safriedl@vcu.edu

(804) 828-6684

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu

(804) 828-4622

Program website: business.vcu.edu/graduate/emba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.) [Executive]

Business Administration, Master of (M.B.A.) [Executive] with a concentration in business analytics

Business Administration, Master of (M.B.A.) [Executive] with a concentration in corporate finance

Business Administration, Master of (M.B.A.) [Executive] with a concentration in global business

Business Administration, Master of (M.B.A.) [Executive] with a concentration in health care management

Business Administration, Master of (M.B.A.) [Executive] with a concentration in information resources management

Business Administration, Master of (M.B.A.) [Executive] with a concentration in investments

Business Administration, Master of (M.B.A.) [Executive] with a concentration in real estate

Business Administration, Master of (M.B.A.) [Executive] with a concentration in supply chain management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.) [Executive] with a concentration in entrepreneurship and innovation			
Degree: M.B.A.	Semester(s) of entry: Fall only	Deadline dates: Feb 15 (for early	Test requirements: GMAT or GRE
	raii oniy	decision)	
		Apr 22 (final decision)	

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an upto-date resume.

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 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

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Student learning outcomes

- Demonstrate the capacity from an executive perspective to integrate knowledge-specific information to different business disciplines in helping teams to solve business problems in new and unfamiliar circumstances
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Degree requirements

The Executive M.B.A. program is designed for students with familiarity with significant work experience. The student's adviser will review the student's educational and professional background to determine the extent to which the student has satisfied the prerequisites. Those with outstanding prerequisites will be required to attend one or more training sessions to remove any deficiencies.

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FMBA 606 Analysis and Decisions (course 3)	3
Module 4	
FMBA 607 Global Challenges (course 1)	3
Module 5	
FMBA 608 Organizational Culture (course 1)	3
Module 6	
FMBA 609 Productivity and Innovation (course 1)	3
FMBA 610 Productivity and Innovation (course 2)	3
Module 7	
FMBA 611 Strategic Management (course 1)	3
FMBA 612 Strategic Management (course 2)	3
FMBA 613 Strategic Management (course 3)	3
	3

Choose three courses from the following list:

ENGR 691 Special Topics in Engineering	3
MGMT 655 Entrepreneurship	3
MKTG 657 International Market Planning Project	3
MKTG 693 Field Project in Marketing	3

Total graduate credit hours required (minimum) 48

Degree candidacy requirements

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Graduation requirements



Other information

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Business Administration, Master of (M.B.A.) [Executive] with a concentration in global business

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Stacey A. Friedl
Director, E.M.B.A. program
safriedl@vcu.edu
(804) 828-6684

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/emba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.) [Executive] Business Administration, Master of (M.B.A.) [Executive] with a concentration in business analytics Business Administration, Master of (M.B.A.) [Executive] with a concentration in corporate finance

Business Administration, Master of (M.B.A.) [Executive] with a concentration in entrepreneurship and innovation

Business Administration, Master of (M.B.A.) [Executive] with a concentration in health care management

Business Administration, Master of (M.B.A.) [Executive] with a concentration in information resources management

Business Administration, Master of (M.B.A.) [Executive] with a concentration in investments

Business Administration, Master of (M.B.A.) [Executive] with a concentration in real estate

Business Administration, Master of (M.B.A.) [Executive] with a concentration in supply chain management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.) [Executive] with a concentration in global business			
Degree: M.B.A.	Semester(s) of entry: Fall only	Deadline dates: Feb 15 (for early decision)	Test requirements: GMAT or GRE
		Apr 22 (final decision)	

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an up-to-date resume.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

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Student learning outcomes

- Demonstrate the capacity from an executive perspective to integrate knowledge-specific information to different business disciplines in helping teams to solve business problems in new and unfamiliar circumstances
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Degree requirements

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Curriculum requirements

Courses	Credit hours
Module 1	
FMBA 601 Team Building and Leadership (course 1)	3
FMBA 602 Team Building and Leadership (course 2)	3
• • • • • • • • • • • • • • • • • • • •	
Module 2	
FMBA 603 Business Foundations (course 1)	3
Module 3	
FMBA 604 Analysis and Decisions (course 1)	3
FMBA 605 Analysis and Decisions (course 2)	3
FMBA 606 Analysis and Decisions (course 3)	3
M- 4.1- 4	
Module 4 EMPA 607 Clobal Challenges (course 1)	3
FMBA 607 Global Challenges (course 1)	3
Module 5	
FMBA 608 Organizational Culture (course 1)	3
	-
Module 6	
FMBA 609 Productivity and Innovation (course 1)	3
FMBA 610 Productivity and Innovation (course 2)	3
Module 7	
FMBA 611 Strategic Management (course 1)	3
FMBA 612 Strategic Management (course 2)	3
FMBA 613 Strategic Management (course 3)	3
Electives	9
Choose three courses from the following list:	9
Choose three courses from the following list.	
ACCT 606 International Accounting	3
ECON 609 Advanced International Economics	3
FIRE 639 International Finance	3
MGMT 644 International Business Management	3
MKTG 656 International Marketing	3
MKTG 657 International Marketing Planning Project	3
Total graduate anodit hours required (minimum)	10

Degree candidacy requirements

Total graduate credit hours required (minimum)

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academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Degree candidacy requirements



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Other information

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Business Administration, Master of (M.B.A.) [Executive] with a concentration in health care management

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Stacey A. Friedl Director, E.M.B.A. program safriedl@vcu.edu (804) 828-6684

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/emba.html

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Business Administration, Master of (M.B.A.) [Executive] with a concentration in real estate

Business Administration, Master of (M.B.A.) [Executive] with a concentration in supply chain management

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Admission requirements

Business Administration, Master of (M.B.A.) [Executive] with a concentration in health care management			
Degree: M.B.A.	Semester(s) of entry: Fall only	Deadline dates: Feb 15 (for early decision) Apr 22 (final decision)	Test requirements: GMAT or GRE

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Module 4	
FMBA 607 Global Challenges (course 1)	3
Module 5	
FMBA 608 Organizational Culture (course 1)	3
Module 6	
FMBA 609 Productivity and Innovation (course 1)	3
FMBA 610 Productivity and Innovation (course 2)	3
Module 7	
FMBA 611 Strategic Management (course 1)	3
FMBA 612 Strategic Management (course 2)	3
FMBA 613 Strategic Management (course 3)	3
Electives	9
FMBA 614 Health Care Management I: National Perspective	3
FMBA 615 Health Care Management II: Employer's Perspective	3
FMBA 616 Health Care Management III: Industry Perspective	3

Degree candidacy requirements

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Total graduate credit hours required (minimum)

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Graduation requirements

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Other information

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Business Administration, Master of (M.B.A.) [Executive] with a concentration in information resources management

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Stacey A. Friedl

Director, E.M.B.A. program

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(804) 828-6684

Additional contact

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Associate dean, master's programs

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Business Administration, Master of (M.B.A.) [Executive] with a concentration in supply chain management

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Admission requirements

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Module 6	
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FMBA 610 Productivity and Innovation (course 2)	3
Module 7	
FMBA 611 Strategic Management (course 1)	3
FMBA 612 Strategic Management (course 2)	3
FMBA 613 Strategic Management (course 3)	3
Electives	9
Electives	9
Choose three courses from the following list:	9
	3
Choose three courses from the following list:	
Choose three courses from the following list: INFO 610 Analysis and Design of Database Systems	3
Choose three courses from the following list: INFO 610 Analysis and Design of Database Systems INFO 611 Data Re-engineering	3
Choose three courses from the following list: INFO 610 Analysis and Design of Database Systems INFO 611 Data Re-engineering INFO 632 Business Process Engineering	3 3 3
Choose three courses from the following list: INFO 610 Analysis and Design of Database Systems INFO 611 Data Re-engineering INFO 632 Business Process Engineering INFO 641 Strategic Information Systems Planning INFO/CISS 644 Principles of Computer and Information Systems	3 3 3 3

Total graduate credit hours required (minimum)

Degree candidacy requirements

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Graduation requirements



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Program accreditation

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Graduate program director

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Additional contact

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Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.) [Executive] with a concentration in investments			
Degree: M.B.A.	Semester(s) of entry: Fall only	Deadline dates: Feb 15 (for early decision)	Test requirements: GMAT or GRE
		Apr 22	

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

VCU's School of Business Executive M.B.A. program provides experienced managers in Virginia and surrounding states with the knowledge and skills needed to solve real-world business problems in today's complex global environment. The Executive M.B.A. program accomplishes this purpose by using a curriculum with an integrated, modular, team-oriented, interdisciplinary approach that constantly challenges students to apply knowledge and skills to new and unfamiliar situations by using a conceptual understanding of relevant business disciplines.

Student learning outcomes

- Demonstrate the capacity from an executive perspective to integrate knowledge-specific information to different business disciplines in helping teams to solve business problems in new and unfamiliar circumstances
- Demonstrate communication knowledge and skills in both technical and interpersonal areas
- Demonstrate an understanding of the ethical and social responsibility of business organizations in the U.S. and in other parts of the world
- 4. Demonstrate analytic skills using new and unfamiliar data sets

Degree requirements

The Executive M.B.A. program is designed for students with familiarity with significant work experience. The student's adviser will review the student's educational and professional background to determine the extent to which the student has satisfied the prerequisites. Those with outstanding prerequisites will be required to attend one or more training sessions to remove any deficiencies.

In addition to VCU Graduate School graduation requirements, students seeking a concentration must complete a minimum of 48 graduate credit hours. The program consists of 13 courses that are divided into seven integrated modules plus the concentration electives.

Curriculum requirements

Courses	Credit hours
Module 1 FMBA 601 Team Building and Leadership (course 1) FMBA 602 Team Building and Leadership (course 2)	3 3
Module 2 FMBA 603 Business Foundations (course 1)	3
Module 3 FMBA 604 Analysis and Decisions (course 1) FMBA 605 Analysis and Decisions (course 2) FMBA 606 Analysis and Decisions (course 3)	3 3 3
Module 4 FMBA 607 Global Challenges (course 1)	3
Module 5 FMBA 608 Organizational Culture (course 1)	3
Module 6 FMBA 609 Productivity and Innovation (course 1) FMBA 610 Productivity and Innovation (course 2)	3 3
Module 7	

FMBA 611 Strategic Management (course 1)	3
FMBA 612 Strategic Management (course 2)	3
FMBA 613 Strategic Management (course 3)	3
Electives	9
Choose three courses from the following list:	
ECON 617 Financial Markets	3
FIRE 622 Financial Management of Financial Institutions	3
FIRE 635 Investments and Security Analysis	3
FIRE 650 Derivatives	3
FIRE 657 Current Issues in Investments and Markets	3

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.) [Executive] with a concentration in real estate

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Stacey A. Friedl Director, E.M.B.A. program safriedl@vcu.edu (804) 828-6684

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/emba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.) [Executive]

Business Administration, Master of (M.B.A.) [Executive] with a concentration in business analytics

Business Administration, Master of (M.B.A.) [Executive] with a concentration in corporate finance

Business Administration, Master of (M.B.A.) [Executive] with a concentration in entrepreneurship and innovation

Business Administration, Master of (M.B.A.) [Executive] with a concentration in global business

Business Administration, Master of (M.B.A.) [Executive] with a concentration in health care management

Business Administration, Master of (M.B.A.) [Executive] with a concentration in information resources management

Business Administration, Master of (M.B.A.) [Executive] with a concentration in investments

Business Administration, Master of (M.B.A.) [Executive] with a concentration in supply chain management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.) [Executive] with a concentration in real estate			
Degree: M.B.A.	Semester(s) of entry: Fall only	Deadline dates: Feb 15 (for early decision) Apr 22 (final decision)	Test requirements: GMAT or GRE

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an upto-date resume.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

VCU's School of Business Executive M.B.A. program provides experienced managers in Virginia and surrounding states with the knowledge and skills needed to solve real-world business problems in today's complex global environment. The Executive M.B.A. program accomplishes this purpose by using a curriculum with an integrated, modular, team-oriented, interdisciplinary approach that constantly challenges students to apply knowledge and skills to new and unfamiliar situations by using a conceptual understanding of relevant business disciplines.

Student learning outcomes

- Demonstrate the capacity from an executive perspective to integrate knowledge-specific information to different business disciplines in helping teams to solve business problems in new and unfamiliar circumstances
- 2. Demonstrate communication knowledge and skills in both technical and interpersonal areas
- Demonstrate an understanding of the ethical and social responsibility of business organizations in the U.S. and in other parts of the world
- 4. Demonstrate analytic skills using new and unfamiliar data sets

Degree requirements

The Executive M.B.A. program is designed for students with familiarity with significant work experience. The student's adviser will review the student's educational and professional background to determine the extent to which the student has satisfied the prerequisites. Those with outstanding prerequisites will be required to attend one or more training sessions to remove any deficiencies.

In addition to VCU Graduate School graduation requirements, students seeking a concentration must complete a minimum of 48 graduate credit hours. The program consists of 13 courses that are divided into seven integrated modules plus the concentration electives

Curriculum requirements

Courses	Credit hour
Module 1	
FMBA 601 Team Building and Leadership (course 1)	3
FMBA 602 Team Building and Leadership (course 2)	3
Module 2	
FMBA 603 Business Foundations (course 1)	3
Module 3	
FMBA 604 Analysis and Decisions (course 1)	3
FMBA 605 Analysis and Decisions (course 2)	3
FMBA 606 Analysis and Decisions (course 3)	3
Module 4	
FMBA 607 Global Challenges (course 1)	3
Module 5	
FMBA 608 Organizational Culture (course 1)	3
Module 6	
FMBA 609 Productivity and Innovation (course 1)	3
FMBA 610 Productivity and Innovation (course 2)	3
Module 7	
FMBA 611 Strategic Management (course 1)	3
FMBA 612 Strategic Management (course 2)	3
FMBA 613 Strategic Management (course 3)	3
Electives	9
Choose three courses from the following list:	
FIRE 627 Real Estate Development	3
FIRE 629 Real Estate Investment Analysis	3
FIRE 638 Real Property Investment Law	3
FIRE 658 Real Estate Finance and Investments	3
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Total graduate credit hours required (minimum)

48

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.) [Executive] with a concentration in supply chain management

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Stacey A. Friedl
Director, E.M.B.A. program
safriedl@vcu.edu
(804) 828-6684

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/emba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.) [Executive]

Business Administration, Master of (M.B.A.) [Executive] with a concentration in business analytics

Business Administration, Master of (M.B.A.) [Executive] with a concentration in corporate finance

Business Administration, Master of (M.B.A.) [Executive] with a concentration in entrepreneurship and innovation

Business Administration, Master of (M.B.A.) [Executive] with a concentration in global business

Business Administration, Master of (M.B.A.) [Executive] with a concentration in health care management

Business Administration, Master of (M.B.A.) [Executive] with a concentration in

information resources management

Business Administration, Master of (M.B.A.) [Executive] with a concentration in investments

Business Administration, Master of (M.B.A.) [Executive] with a concentration in real estate

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.) [Executive] with a concentration in supply chain management			
Degree: M.B.A.	Semester(s) of entry: Fall only	Deadline dates: Feb 15 (for early decision) Apr 22 (final decision)	Test requirements: GMAT or GRE

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an upto-date resume.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

VCU's School of Business Executive M.B.A. program provides experienced managers in Virginia and surrounding states with the knowledge and skills needed to solve real-world business problems in today's complex global environment. The Executive M.B.A. program accomplishes this purpose by using a curriculum with an integrated, modular, team-oriented, interdisciplinary approach that constantly challenges students to apply knowledge and skills to new and unfamiliar situations by using a conceptual understanding of relevant business disciplines.

Student learning outcomes

- Demonstrate the capacity from an executive perspective to integrate knowledge-specific information to different business disciplines in helping teams to solve business problems in new and unfamiliar circumstances
- Demonstrate communication knowledge and skills in both technical and interpersonal areas
- Demonstrate an understanding of the ethical and social responsibility of business organizations in the U.S. and in other parts of the world
- 4. Demonstrate analytic skills using new and unfamiliar data sets

Degree requirements

The Executive M.B.A. program is designed for students with familiarity with significant work experience. The student's adviser will review the student's educational and professional background to determine the extent to which the

student has satisfied the prerequisites. Those with outstanding prerequisites will be required to attend one or more training sessions to remove any deficiencies.

In addition to VCU Graduate School graduation requirements, students seeking a concentration must complete a minimum of 48 graduate credit hours. The program consists of 13 courses that are divided into seven integrated modules plus the concentration electives.

Curriculum requirements

Courses	Credit hours
Module 1 FMBA 601 Team Building and Leadership (course 1) FMBA 602 Team Building and Leadership (course 2)	3 3
Module 2 FMBA 603 Business Foundations (course 1)	3
Module 3 FMBA 604 Analysis and Decisions (course 1) FMBA 605 Analysis and Decisions (course 2) FMBA 606 Analysis and Decisions (course 3)	3 3 3
Module 4 FMBA 607 Global Challenges (course 1)	3
Module 5 FMBA 608 Organizational Culture (course 1)	3
Module 6 FMBA 609 Productivity and Innovation (course 1) FMBA 610 Productivity and Innovation (course 2)	3 3
Module 7 FMBA 611 Strategic Management (course 1) FMBA 612 Strategic Management (course 2) FMBA 613 Strategic Management (course 3)	3 3 3
Required concentration courses MGMT 691 Topics in Management (when the topic is supply chain management)	6 3
SCMA 677 Quality Management and Six Sigma	3
Elective Choose one course from the following list:	3
MKTG 691 Topics in Marketing (when the topic is marketing analytics)	3
SCMA 669 Developing and Implementing Forecasting Methods for Business	3

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.) [Executive]/ Information Systems, Master of Science (M.S.) with a concentration in information technology management [Fast Track Executive] [combined]

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Stacey A. Friedl Director, E.M.B.A. program safriedl@vcu.edu (804) 828-6684

Additional contact

William J. Miller
Executive director, business development
wjmille1@vcu.edu
(804) 828-3491

Program website: business.vcu.edu/graduate.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.) [Executive]/Information Systems, Master of Science (M.S.) with a concentration in information technology management [Fast Track Executive] [combined]

Degree: M.B.A./M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GMAT
	Fall only	Feb 15 (for early decision)	
		Apr 22 (final decision)	
	Spring only	Nov 1 (for early decision)	
		Jan 15 (final decision)	

Admission notes regarding deadline: Students in the Executive M.B.A. program have the option to continue with the Fast Track Executive M.S. in Information Systems with a concentration in information technology management program after having completed the requirements for the Executive M.B.A. to earn both degrees.

Applicants must meet all general admission requirements of the VCU Graduate School.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

Executive M.B.A.

VCU's School of Business Executive M.B.A. program provides experienced managers in Virginia and surrounding states with the knowledge and skills needed to solve real-world business problems in today's complex global environment. The Executive M.B.A. program accomplishes this purpose by using a curriculum with an integrated, modular, team-oriented, interdisciplinary approach that constantly challenges students to apply knowledge and skills to new and unfamiliar situations by using a conceptual understanding of relevant business disciplines.

M.S. in Information Systems

The Master of Science in Information Systems program is designed to prepare students for specialized roles in information systems. The program is intended to provide a graduate-level, technically oriented curriculum that focuses on the design and development of information systems to solve real-world problems. The department's curriculum is focused on the rapidly emerging area known as enterprise information systems. Graduates of the program are expected to be able to take significant roles in planning, organizing, managing, designing, configuring and implementing EIS using state-of-the-art technologies within organizations.

Student learning outcomes

Executive M.B.A.

- Demonstrate the capacity from an executive perspective to integrate knowledge-specific information to different business disciplines in helping teams to solve business problems in new and unfamiliar circumstances
- Demonstrate communication knowledge and skills in both technical and interpersonal areas
- Demonstrate an understanding of the ethical and social responsibility of business organizations in the U.S. and in other parts of the world
- 4. Demonstrate analytic skills using new and unfamiliar data sets

M.S. in Information Systems

Graduates should be able to:

- Communicate and network effectively within their professions and organizations; serve the profession by applying this knowledge broadly, and maintain key technical expertise in order to sustain required levels of competitiveness
- 2. Understand information technology as it applies to business contexts and effectively apply this technology in specific circumstances
- 3. Develop efficient and effective IS solutions using appropriate technologies that can deliver competitive advantages to organizations
- Develop and incorporate changes in the planning and management of IS
 resources based on an increased understanding of the dynamic changes in the
 organization, IS and global environments

Degree requirements

In addition to VCU Graduate School graduation requirements, students must complete a minimum of 60 hours of graduate course work. Students pursuing this dual degree option will have four courses in the Fast Track M.S. program waived. These four courses cover the information systems content of the Executive M.B.A. program.

Curriculum requirements

Courses	Credit hours
Executive M.B.A. courses	39
Module 1	
, and a second of the second o	3
FMBA 602 Team Building and Leadership (course 2)	3
Module 2	
	3
, , , , , , , , , , , , , , , , , , , ,	
Module 3	
FMBA 604 Analysis and Decisions (course 1)	3
FMBA 605 Analysis and Decisions (course 2)	3
FMBA 606 Analysis and Decisions (course 3)	3
Module 4	_
FMBA 607 Global Challenges (course 1)	3
Module 5	
2.20 4.00	3
TWDA 000 Organizational Culture (course 1)	,
Module 6	
FMBA 609 Productivity and Innovation (course 1)	3
FMBA 610 Productivity and Innovation (course 2)	3
Module 7	
	3
	3
FMBA 613 Strategic Management (course 3)	3

Information systems courses		21
ISTM 674 Emerging Technologies	3	
ISTM 675 IS Planning and Project Management	3	
ISTM 676 Information Systems Assurance and Security	3	
Management		
ISTM 677 Structuring Information for Decision Making	3	
ISTM 678 IS in the Digital Economy	3	
ISTM 679 Enterprise Information Systems	3	
ISTM 691 Topics in IT Management	3	

Total graduate credit hours required (minimum)

60

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Degree candidacy requirements



Graduation requirements

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Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.)

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis
Senior director, master's programs
androvichem@vcu.edu
(804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/mba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.) with a concentration in business analytics

Business Administration, Master of (M.B.A.) with a concentration in corporate finance

Business Administration, Master of (M.B.A.) with a concentration in entrepreneurship and innovation

Business Administration, Master of (M.B.A.) with a concentration in global business

Business Administration, Master of (M.B.A.) with a concentration in health care management

Business Administration, Master of (M.B.A.) with a concentration in human capital

Business Administration, Master of (M.B.A.) with a concentration in information resources management

Business Administration, Master of (M.B.A.) with a concentration in investments Business Administration, Master of (M.B.A.) with a concentration in real estate Business Administration, Master of (M.B.A.) with a concentration in supply chain management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.)			
Degree: M.B.A.	Semester(s) of entry: Fall Spring Summer	Deadline dates: Jul 1 Nov 1 Mar 1	Test requirements: GMAT or GRE

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an up-to-date resume.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The purpose of the Master of Business Administration program at VCU is to prepare individuals for the responsibilities of management. As students at VCU, individuals will learn the functions and techniques of effective management. The student also will come to understand the environmental and economic factors that affect decision-making in organizations. In short, the student will know what to do as future events unfold that affect his/her firm or organization.

An M.B.A. from VCU benefits students at various points in their careers. Individuals who have recently received their baccalaureate degrees may choose to refine their business skills while their undergraduate training is fresh. Individuals with work experience often find that an M.B.A. is the key to rapid promotion or a career change. Finally, an M.B.A. from VCU meets the needs of students who recognize that the best preparation for an uncertain future is continuous learning.

Student learning outcomes

- Students should be able to demonstrate the capacity to apply business knowledge in new and unfamiliar circumstances.
- Students should be able to demonstrate the ability to work in teams and other groups.
- Students should understand and be able to develop the ethical and social responsibilities of organizations.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Students should be able to identify and understand major issues faced by organizations with evolving information technology and investigate issues and challenges faced by managers with changes in information technology.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Graduates of the program should be able to critically evaluate and use accounting and other information for managerial decision-making.
- 8. Graduates should be able to evaluate marketing programs.
- Students should be able to think critically and systematically about financial issues in businesses to develop techniques to analyze these issues numerically.
- 10. Graduates of the program should be able to develop an analytical framework for identifying the objectives of the firm and to provide some tools for evaluating the firm's performance.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students in the M.B.A. program must complete a minimum of 36 graduate credit hours. In addition, a prerequisite course in calculus is required. This prerequisite may be waived for students who present satisfactory equivalent preparation. Applicants who have not met this prerequisite may take the course after admission.

The program also includes seven foundation courses. These courses may be waived for students who have taken the equivalent material at the undergraduate level within the past five years and received a minimum grade of B. After a student has been admitted, courses which have not been waived must be completed at the graduate level.

Students are expected to enter the program with basic computing proficiency. Specific expectations will be provided by the Graduate Studies in Business Office. Specific means of evaluating and correcting any deficiency also will be identified.

Curriculum requirements

The curriculum for the M.B.A. program is flexible and is designed for students with diverse undergraduate backgrounds. Students may elect an M.B.A. without a concentration or may choose an M.B.A. with a single or double concentration. Concentrations areas are noted in the related curricular options above.

Most classes are held in the evening to accommodate working students' schedules. Classes typically meet one evening a week from 7 to 9:40 p.m. or twice a week in the early evening from 5:30 to 6:45 p.m. For additional information about the program, visit vcu.edu/mba.

Courses	Credit hours
Foundation courses	21
ACCT 507 Fundamentals of Accounting	3
ECON 500 Concepts in Economics	3
FIRE 520 Financial Concepts of Management	3
MGMT 540 Management Theory and Practice	3
MKTG 570 Concepts and Issues in Marketing	3
SCMA 524 Statistical Fundamentals for Business Management	3
SCMA 530 Fundamentals of the Legal Environment of Business	3

Advanced courses

Each student must begin the advanced portion of the program with the courses below in each of the first two semesters. Full-time students will take additional courses from the remainder of the advanced program.

Semester one (to be taken at the same time)		6
ECON 610 Managerial Economics	3	·
MGMT 641 Organizational Leadership and Project Team	3	
Management	-	
Semester two		3
FIRE 623 Financial Management	3	
Core courses		18
ACCT 608 Managerial Accounting Concepts	3	
INFO 661 Information Systems for Managers	3	
INFO 664 Information Systems for Business Intelligence	3	
MGMT 642 Business Policy and Strategy	3	
MKTG 671 Marketing Management	3	
SCMA 675 Operations Management	3	
Electives		9
Choose three courses from the following list:		
3		
ECON 607 Advanced Macroeconomic Theory	3	
ECON 609 Advanced International Economics	3	
ECON 612 Econometrics	3	
ECON 616 Advanced Public Finance	3	
ECON 617 Financial Markets	3	
ECON 620 The Economics of Industry	3	
ECON 631 Labor Market Theory and Analysis	3	
ECON 641 Econometric Time-series Analysis	3	
ECON 642 Panel and Nonlinear Methods in Econometrics	3	
ECON 697 Guided Study in Economics	3	
ENGR 691 Special Topics in Engineering	3	
ENVS 691 Topics in Environmental Studies	3	
FIRE 621 Cases in Financial Management	3	
FIRE 622 Financial Management of Financial Institutions	3	
FIRE 625 Group Insurance and Pension Planning	3	
FIRE 626 Risk Management	3	
FIRE 627 Real Estate Development	3	
FIRE 629 Real Estate Investment Analysis	3	
FIRE 635 Investments and Security Analysis	3	
FIRE 638 Real Property Investment Law	3	
FIRE 639 International Finance	3	
FIRE 650 Derivatives	3	
FIRE 654 Short-term Financial Management	3	
FIRE 657 Current Issues in Investments and Markets	3	
FIRE 658 Real Estate Finance and Investments	3	
INFO 610 Analysis and Design of Database Systems	3	
INFO 611 Data Re-engineering	3	
INFO 614 Data Mining	3	
INFO 632 Business Process Engineering	3	
INFO 641 Strategic Information Systems Planning	3	
INFO/CISS 644 Principles of Computer and Information Systems	3	
Security		
INFO 691 Topics in Information Systems	3	
INFO 697 Guided Study in Information Systems	3	
MGMT 637 Advanced Human Resource Management	3	
MGMT 644 International Business Management	3	
MGMT 649 Compensation Policy and Administration	3	
MGMT 655 Entrepreneurship	3	

Total graduate credit hours required (minimum)	57 (36 if all foundation courses are
SCMA 677 Quality Management and Six Sigma	3
for Business	5
SCMA 669 Developing and Implementing Forecasting Methods	3
SCMA 648 Analytics for Organizational Decision-making	3
SCMA 646 Legal Foundations of Employment	3
SCMA 645 Management Science	3
SCMA 632)	5
SCMA 643 Applied Multivariate Methods (must have completed	3
SCMA 632 Statistical Analysis and Modeling	3
SCMA 603 SAP ERP and Supply Chain Management	3
OPER 528 Stochastic Simulation	3
MKTG 697 Guided Study in Marketing	3
MKTG 693 Field Project in Marketing	3
MKTG 691 Topics in Marketing	3
MKTG 674 Service Quality Management	3
MKTG 673 Marketing Research	3
MKTG 672 Concepts in Consumer Behavior	3
MKTG 657 International Market Planning Project	3
MKTG 656 International Marketing	3
MGMT 697 Guided Study in Management	3
MGMT 691 Topics in Management	3
MGMT 684 Issues in International Human Resource Management	3
MGMT 682 Human Resource Staffing	3
MGMT 680 Health, Safety and Security Administration	3
WOWI 030 Best Fractices in Leadership	5

Electives and concentrations

MCMT 656 Bast Practices in Leadership

Project courses (693), topics courses (691) and guided studies (697) may be available for use toward concentration electives. These courses must be preapproved by the director of graduate studies.

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Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

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Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.) with a concentration in business analytics

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis

Senior director, master's programs

and rovichem @vcu.edu

(804) 828-4622

Additional contact

Jana P. McQuaid

Associate dean, master's programs

jpmcquaid@vcu.edu

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Program website: business.vcu.edu/graduate/mba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.)

Business Administration, Master of (M.B.A.) with a concentration in corporate finance

Business Administration, Master of (M.B.A.) with a concentration in entrepreneurship and innovation

Business Administration, Master of (M.B.A.) with a concentration in global business

Business Administration, Master of (M.B.A.) with a concentration in health care management

Business Administration, Master of (M.B.A.) with a concentration in human capital

Business Administration, Master of (M.B.A.) with a concentration in information resources management

Business Administration, Master of (M.B.A.) with a concentration in investments Business Administration, Master of (M.B.A.) with a concentration in real estate Business Administration, Master of (M.B.A.) with a concentration in supply chain management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.) with a concentration in business analytics			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.B.A.	entry:		GMAT or GRE
	Fall	Jul 1	
	Spring	Nov 1	
	Summer	Mar 1	

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty

of the university through their elected representatives to the University Graduate

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The purpose of the Master of Business Administration program at VCU is to prepare individuals for the responsibilities of management. As students at VCU, individuals will learn the functions and techniques of effective management. The student also will come to understand the environmental and economic factors that affect decision-making in organizations. In short, the student will know what to do as future events unfold that affect his/her firm or organization.

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Student learning outcomes

- Students should be able to demonstrate the capacity to apply business knowledge in new and unfamiliar circumstances.
- Students should be able to demonstrate the ability to work in teams and other groups.
- 3. Students should understand and be able to develop the ethical and social responsibilities of organizations.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Students should be able to identify and understand major issues faced by organizations with evolving information technology and investigate issues and challenges faced by managers with changes in information technology.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Graduates of the program should be able to critically evaluate and use accounting and other information for managerial decision-making.
- 8. Graduates should be able to evaluate marketing programs.
- Students should be able to think critically and systematically about financial issues in businesses to develop techniques to analyze these issues numerically.
- 10. Graduates of the program should be able to develop an analytical framework for identifying the objectives of the firm and to provide some tools for evaluating the firm's performance.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students in the M.B.A. program must complete a minimum of 36 graduate credit hours. In addition, a prerequisite course in calculus is required. This prerequisite may be waived for students who present satisfactory equivalent preparation. Applicants who have not met this prerequisite may take the course after admission.

The program also includes seven foundation courses. These courses may be waived for students who have taken the equivalent material at the undergraduate level within the past five years and received a minimum grade of B. After a

student has been admitted, courses which have not been waived must be completed at the graduate level.

Students are expected to enter the program with basic computing proficiency. Specific expectations will be provided by the Graduate Studies in Business Office. Specific means of evaluating and correcting any deficiency also will be identified.

Curriculum requirements

The curriculum for the M.B.A. program is flexible and is designed for students with diverse undergraduate backgrounds. Students may elect an M.B.A. without a concentration or may choose an M.B.A. with a single or double concentration. Concentrations areas are noted in the related curricular options above.

Most classes are held in the evening to accommodate working students' schedules. Classes typically meet one evening a week from 7 to 9:40 p.m. or twice a week in the early evening from 5:30 to 6:45 p.m. For additional information about the program, visit vcu.edu/mba.

Courses	Credit hours
Foundation courses	21
ACCT 507 Fundamentals of Accounting	3
ECON 500 Concepts in Economics	3
FIRE 520 Financial Concepts of Management	3
MGMT 540 Management Theory and Practice	3
MKTG 570 Concepts and Issues in Marketing	3
SCMA 524 Statistical Fundamentals for Business Management	3
SCMA 530 Fundamentals of the Legal Environment of Business	3
Č	
Advanced courses	
Each student must begin the advanced portion of the program with the courses below in each of the first two semesters. Full-time students will take additional courses from the remainder of the advanced program.	
Semester one (to be taken at the same time)	6
ECON 610 Managerial Economics	3
MGMT 641 Organizational Leadership and Project Team Management	3
Semester two	3
FIRE 623 Financial Management	3
Core courses	18
ACCT 608 Managerial Accounting Concepts	3
INFO 661 Information Systems for Managers	3
INFO 664 Information Systems for Business Intelligence	3
MGMT 642 Business Policy and Strategy	3
3 63	3
MKTG 671 Marketing Management	3
SCMA 675 Operations Management	3
Electives	9
Choose three courses from the following list:	
ECON 612 Econometrics	3
ECON 617 Financial Markets	3
ECON 641 Econometric Time-series Analysis	3
ECON 642 Panel and Nonlinear Methods in Econometrics	3
INFO 614 Data Mining	3
MKTG 673 Marketing Research	3
OPER 528 Stochastic Simulation	3
SCMA 632 Statistical Analysis	3
SCMA 643 Applied Multivariate Methods (must have completed	3
SCMA 632)	2
SCMA 645 Management Science	3

SCMA 669 Developing and Implementing Forecasting Methods	3
for Business	
SCMA 677 Quality Management and Six Sigma	3

Total graduate credit hours required (minimum)

57 (36 if all foundation courses are waived)

Electives and concentrations

Project courses (693), topics courses (691) and guided studies (697) may be available for use toward concentration electives. These courses must be preapproved by the director of graduate studies.

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Degree candidacy requirements

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Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.) with a concentration in corporate finance

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis
Senior director, master's programs
androvichem@vcu.edu
(804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu

(804) 828-4622

Program website: business.vcu.edu/graduate/mba.html

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Business Administration, Master of (M.B.A.)

Business Administration, Master of (M.B.A.) with a concentration in business analytics

Business Administration, Master of (M.B.A.) with a concentration in entrepreneurship and innovation

Business Administration, Master of (M.B.A.) with a concentration in global business

Business Administration, Master of (M.B.A.) with a concentration in health care management

Business Administration, Master of (M.B.A.) with a concentration in human capital

Business Administration, Master of (M.B.A.) with a concentration in information resources management

Business Administration, Master of (M.B.A.) with a concentration in investments Business Administration, Master of (M.B.A.) with a concentration in real estate Business Administration, Master of (M.B.A.) with a concentration in supply chain management

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Admission requirements

Business Administration, Master of (M.B.A.) with a concentration in corporate finance			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.B.A.	entry:		GMAT or GRE
	Fall	Jul 1	
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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

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Student learning outcomes

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Courses	Credit hours
Foundation courses	21
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ECON 500 Concepts in Economics	3

FIRE 520 Financial Concepts of Management	3
MGMT 540 Management Theory and Practice	3
MKTG 570 Concepts and Issues in Marketing	3
SCMA 524 Statistical Fundamentals for Business Management	3
SCMA 530 Fundamentals of the Legal Environment of Business	3

Advanced courses

Each student must begin the advanced portion of the program with the courses below in each of the first two semesters. Full-time students will take additional courses from the remainder of the advanced program.

Semester one (to be taken at the same time)	6
ECON 610 Managerial Economics	3
MGMT 641 Organizational Leadership and Project Team Management	3
Semester two	3
FIRE 623 Financial Management	3
Core courses	18
ACCT 608 Managerial Accounting Concepts	3
INFO 661 Information Systems for Managers	3
INFO 664 Information Systems for Business Intelligence	3
MGMT 642 Business Policy and Strategy	3
MKTG 671 Marketing Management	3
SCMA 675 Operations Management	3
Electives	9
Electives Choose three courses from the following list:	9
	9 3
Choose three courses from the following list:	
Choose three courses from the following list: ECON 617 Financial Markets	3
Choose three courses from the following list: ECON 617 Financial Markets FIRE 621 Cases in Financial Management	3 3
Choose three courses from the following list: ECON 617 Financial Markets FIRE 621 Cases in Financial Management FIRE 622 Financial Management of Financial Institutions	3 3 3
Choose three courses from the following list: ECON 617 Financial Markets FIRE 621 Cases in Financial Management FIRE 622 Financial Management of Financial Institutions FIRE 626 Risk Management	3 3 3 3

Electives and concentrations

Project courses (693), topics courses (691) and guided studies (697) may be available for use toward concentration electives. These courses must be preapproved by the director of graduate studies.

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Business Administration, Master of (M.B.A.) with a concentration in entrepreneurship and innovation

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/mba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.) with a concentration in business analytics

Business Administration, Master of (M.B.A.) with a concentration in corporate finance

Business Administration, Master of (M.B.A.) with a concentration in global business

Business Administration, Master of (M.B.A.) with a concentration in health care management

Business Administration, Master of (M.B.A.) with a concentration in human capital

Business Administration, Master of (M.B.A.) with a concentration in information resources management

Business Administration, Master of (M.B.A.) with a concentration in investments Business Administration, Master of (M.B.A.) with a concentration in real estate Business Administration, Master of (M.B.A.) with a concentration in supply chain management

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Admission requirements

Business Administration, Master of (M.B.A.) with a concentration in entrepreneurship and innovation			
Degree: M.B.A.	Semester(s) of entry:	Deadline dates:	Test requirements: GMAT or GRE
.,	Fall	Jul 1	OMETI OF GREE
	Spring	Nov 1	
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Courses	Credit hours
Foundation courses	21
ACCT 507 Fundamentals of Accounting	3
ECON 500 Concepts in Economics	3
FIRE 520 Financial Concepts of Management	3
MGMT 540 Management Theory and Practice	3
MKTG 570 Concepts and Issues in Marketing	3
SCMA 524 Statistical Fundamentals for Business Management	3
SCMA 530 Fundamentals of the Legal Environment of Business	3

Advanced courses

Each student must begin the advanced portion of the program with the courses below in each of the first two semesters. Full-time students will take additional courses from the remainder of the advanced program.

Semester one (to be taken at the same time)		6
ECON 610 Managerial Economics	3	
MGMT 641 Organizational Leadership and Project Team Management	3	
Semester two		3
FIRE 623 Financial Management	3	
Core courses		18
ACCT 608 Managerial Accounting Concepts	3	
INFO 661 Information Systems for Managers	3	
INFO 664 Information Systems for Business Intelligence	3	
MGMT 642 Business Policy and Strategy	3	
MKTG 671 Marketing Management	3	
SCMA 675 Operations Management	3	
Electives		9
Choose three courses from the following list:		

ENGR 691 Special Topics in Engineering (when the topic is chemical process design and development)	3
MGMT 655 Entrepreneurship	3
MKTG 657 International Market Planning Project	3
MKTG 693 Field Project in Marketing	3
Total graduate credit hours required (minimum)	57 (36 if all foundation courses are waived)

Electives and concentrations

Project courses (693), topics courses (691) and guided studies (697) may be available for use toward concentration electives. These courses must be preapproved by the director of graduate studies.

Electives from the School of Business must be 600-level courses and students must satisfy the necessary prerequisites. Courses at the 500- or 600-level taken outside of the School of Business may be used with the permission of the director of graduate studies in business. Students must satisfy the necessary prerequisites for all electives.

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Graduation requirements

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Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.) with a concentration in global business

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichem@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/mba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.)

Business Administration, Master of (M.B.A.) with a concentration in business analytics

Business Administration, Master of (M.B.A.) with a concentration in corporate finance

Business Administration, Master of (M.B.A.) with a concentration in entrepreneurship and innovation

Business Administration, Master of (M.B.A.) with a concentration in health care management

Business Administration, Master of (M.B.A.) with a concentration in human capital

Business Administration, Master of (M.B.A.) with a concentration in information resources management

Business Administration, Master of (M.B.A.) with a concentration in investments Business Administration, Master of (M.B.A.) with a concentration in real estate Business Administration, Master of (M.B.A.) with a concentration in supply chain management

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Admission requirements

Business Administration, Master of (M.B.A.) with a concentration in global business			
Degree: M.B.A.	Semester(s) of entry:	Deadline dates:	Test requirements: GMAT or GRE
	Fall	Jul 1	
	Spring	Nov 1	
	Summer	Mar 1	

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The purpose of the Master of Business Administration program at VCU is to prepare individuals for the responsibilities of management. As students at VCU, individuals will learn the functions and techniques of effective management. The student also will come to understand the environmental and economic factors that

affect decision-making in organizations. In short, the student will know what to do as future events unfold that affect his/her firm or organization.

An M.B.A. from VCU benefits students at various points in their careers. Individuals who have recently received their baccalaureate degrees may choose to refine their business skills while their undergraduate training is fresh. Individuals with work experience often find that an M.B.A. is the key to rapid promotion or a career change. Finally, an M.B.A. from VCU meets the needs of students who recognize that the best preparation for an uncertain future is continuous learning.

Student learning outcomes

- Students should be able to demonstrate the capacity to apply business knowledge in new and unfamiliar circumstances.
- Students should be able to demonstrate the ability to work in teams and other groups.
- Students should understand and be able to develop the ethical and social responsibilities of organizations.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Students should be able to identify and understand major issues faced by
 organizations with evolving information technology and investigate issues
 and challenges faced by managers with changes in information technology.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Graduates of the program should be able to critically evaluate and use accounting and other information for managerial decision-making.
- 8. Graduates should be able to evaluate marketing programs.
- Students should be able to think critically and systematically about financial issues in businesses to develop techniques to analyze these issues numerically.
- 10. Graduates of the program should be able to develop an analytical framework for identifying the objectives of the firm and to provide some tools for evaluating the firm's performance.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students in the M.B.A. program must complete a minimum of 36 graduate credit hours. In addition, a prerequisite course in calculus is required. This prerequisite may be waived for students who present satisfactory equivalent preparation. Applicants who have not met this prerequisite may take the course after admission.

The program also includes seven foundation courses. These courses may be waived for students who have taken the equivalent material at the undergraduate level within the past five years and received a minimum grade of B. After a student has been admitted, courses which have not been waived must be completed at the graduate level.

Students are expected to enter the program with basic computing proficiency. Specific expectations will be provided by the Graduate Studies in Business Office. Specific means of evaluating and correcting any deficiency also will be identified.

Curriculum requirements

The curriculum for the M.B.A. program is flexible and is designed for students with diverse undergraduate backgrounds. Students may elect an M.B.A. without a concentration or may choose an M.B.A. with a single or double concentration. Concentrations areas are noted in the related curricular options above.

Most classes are held in the evening to accommodate working students' schedules. Classes typically meet one evening a week from 7 to 9:40 p.m. or twice a week in the early evening from 5:30 to 6:45 p.m. For additional information about the program, visit vcu.edu/mba.

Courses Credit hours

Foundation courses

21

ACCT 507 Fundamentals of Accounting	3
ECON 500 Concepts in Economics	3
FIRE 520 Financial Concepts of Management	3
MGMT 540 Management Theory and Practice	3
MKTG 570 Concepts and Issues in Marketing	3
SCMA 524 Statistical Fundamentals for Business Management	3
SCMA 530 Fundamentals of the Legal Environment of Business	3

Advanced courses

Each student must begin the advanced portion of the program with the courses below in each of the first two semesters. Full-time students will take additional courses from the remainder of the advanced program.

Semester one (to be taken at the same time)	6
ECON 610 Managerial Economics	3
MGMT 641 Organizational Leadership and Project Team Management	3
Semester two	3
FIRE 623 Financial Management	3
Core courses	18
ACCT 608 Managerial Accounting Concepts	3
INFO 661 Information Systems for Managers	3
INFO 664 Information Systems for Business Intelligence	3
MGMT 642 Business Policy and Strategy	3
MKTG 671 Marketing Management	3
SCMA 675 Operations Management	3
Electives	9
Choose three courses from the following list:	
ACCT 606 International Accounting	3
ECON 609 Advanced International Economics	3
FIRE 639 International Finance	3
MGMT 644 International Business Management	3
MKTG 656 International Marketing	3
MKTG 657 International Marketing Planning Project	3
Total graduate credit hours required (minimum)	57 (36 if all foundation courses are waived)

Electives and concentrations

Project courses (693), topics courses (691) and guided studies (697) may be available for use toward concentration electives. These courses must be preapproved by the director of graduate studies.

Electives from the School of Business must be 600-level courses and students must satisfy the necessary prerequisites. Courses at the 500- or 600-level taken outside of the School of Business may be used with the permission of the director of graduate studies in business. Students must satisfy the necessary prerequisites for all electives.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.) with a concentration in health care management

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichem@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/mba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.)

Business Administration, Master of (M.B.A.) with a concentration in business analytics

Business Administration, Master of (M.B.A.) with a concentration in corporate finance

Business Administration, Master of (M.B.A.) with a concentration in entrepreneurship and innovation

Business Administration, Master of (M.B.A.) with a concentration in global business

Business Administration, Master of (M.B.A.) with a concentration in human capital

Business Administration, Master of (M.B.A.) with a concentration in information resources management

Business Administration, Master of (M.B.A.) with a concentration in investments Business Administration, Master of (M.B.A.) with a concentration in real estate Business Administration, Master of (M.B.A.) with a concentration in supply chain management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.) with a concentration in health care management			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.B.A.	entry:		GMAT or GRE
	Fall	Jul 1	
	Spring	Nov 1	
	Summer	Mar 1	

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an upto-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The purpose of the Master of Business Administration program at VCU is to prepare individuals for the responsibilities of management. As students at VCU, individuals will learn the functions and techniques of effective management. The student also will come to understand the environmental and economic factors that affect decision-making in organizations. In short, the student will know what to do as future events unfold that affect his/her firm or organization.

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Student learning outcomes

- Students should be able to demonstrate the capacity to apply business knowledge in new and unfamiliar circumstances.
- Students should be able to demonstrate the ability to work in teams and other groups.
- 3. Students should understand and be able to develop the ethical and social responsibilities of organizations.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Students should be able to identify and understand major issues faced by organizations with evolving information technology and investigate issues and challenges faced by managers with changes in information technology.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.

- Graduates of the program should be able to critically evaluate and use accounting and other information for managerial decision-making.
- Graduates should be able to evaluate marketing programs.
- Students should be able to think critically and systematically about financial issues in businesses to develop techniques to analyze these issues numerically.
- Graduates of the program should be able to develop an analytical framework for identifying the objectives of the firm and to provide some tools for evaluating the firm's performance.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students in the M.B.A. program must complete a minimum of 36 graduate credit hours. In addition, a prerequisite course in calculus is required. This prerequisite may be waived for students who present satisfactory equivalent preparation. Applicants who have not met this prerequisite may take the course after admission.

The program also includes seven foundation courses. These courses may be waived for students who have taken the equivalent material at the undergraduate level within the past five years and received a minimum grade of B. After a student has been admitted, courses which have not been waived must be completed at the graduate level.

Students are expected to enter the program with basic computing proficiency. Specific expectations will be provided by the Graduate Studies in Business Office. Specific means of evaluating and correcting any deficiency also will be identified.

Curriculum requirements

The curriculum for the M.B.A. program is flexible and is designed for students with diverse undergraduate backgrounds. Students may elect an M.B.A. without a concentration or may choose an M.B.A. with a single or double concentration. Concentrations areas are noted in the related curricular options above.

Most classes are held in the evening to accommodate working students' schedules. Classes typically meet one evening a week from 7 to 9:40 p.m. or twice a week in the early evening from 5:30 to 6:45 p.m. For additional information about the program, visit vcu.edu/mba.

Courses	Credit hours
Foundation courses	21
ACCT 507 Fundamentals of Accounting	3
ECON 500 Concepts in Economics	3
FIRE 520 Financial Concepts of Management	3
MGMT 540 Management Theory and Practice	3
MKTG 570 Concepts and Issues in Marketing	3
SCMA 524 Statistical Fundamentals for Business Management	3
SCMA 530 Fundamentals of the Legal Environment of Business	3
Advanced courses	27
Each student must begin the advanced portion of the program with the courses below in each of the first two semesters. Full-time students will take additional courses from the remainder of the advanced program.	1
Semester one (to be taken at the same time)	6
ECON 610 Managerial Economics	3
MGMT 641 Organizational Leadership and Project Team Management	3
Semester two	3
FIRE 623 Financial Management	3
Remainder of the advanced program	18
ACCT 608 Managerial Accounting Concepts	3
INFO 661 Information Systems for Managers	3
INFO 664 Information Systems for Business Intelligence	3

MGMT 642 Business Policy and Strategy	3
MKTG 671 Marketing Management	3
SCMA 675 Operations Management	3
Required concentration courses	9
FMBA 614 Health Care Management I: National Perspective	3
FMBA 615 Health Care Management II: Employer's Perspective	3
FMBA 616 Health Care Management III: Industry Perspective	3
Total graduate credit hours required (minimum)	57 (36 if all foundation courses are waived)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.) with a concentration in human capital

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/mba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.)

Business Administration, Master of (M.B.A.) with a concentration in business

Business Administration, Master of (M.B.A.) with a concentration in corporate finance

Business Administration, Master of (M.B.A.) with a concentration in entrepreneurship and innovation

Business Administration, Master of (M.B.A.) with a concentration in global

Business Administration, Master of (M.B.A.) with a concentration in health care management

Business Administration, Master of (M.B.A.) with a concentration in information resources management

Business Administration, Master of (M.B.A.) with a concentration in investments Business Administration, Master of (M.B.A.) with a concentration in real estate Business Administration, Master of (M.B.A.) with a concentration in supply chain management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.) with a concentration in human capital			
Degree: M.B.A.	Semester(s) of entry: Fall Spring Summer	Deadline dates: Jul 1 Nov 1 Mar 1	Test requirements: GMAT or GRE

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an upto-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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> General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The purpose of the Master of Business Administration program at VCU is to prepare individuals for the responsibilities of management. As students at VCU, individuals will learn the functions and techniques of effective management. The student also will come to understand the environmental and economic factors that affect decision-making in organizations. In short, the student will know what to do as future events unfold that affect his/her firm or organization.

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career change. Finally, an M.B.A. from VCU meets the needs of students who recognize that the best preparation for an uncertain future is continuous learning.

Student learning outcomes

- Students should be able to demonstrate the capacity to apply business knowledge in new and unfamiliar circumstances.
- Students should be able to demonstrate the ability to work in teams and other groups.
- Students should understand and be able to develop the ethical and social responsibilities of organizations.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Students should be able to identify and understand major issues faced by organizations with evolving information technology and investigate issues and challenges faced by managers with changes in information technology.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Graduates of the program should be able to critically evaluate and use accounting and other information for managerial decision-making.
- 8. Graduates should be able to evaluate marketing programs.
- Students should be able to think critically and systematically about financial issues in businesses to develop techniques to analyze these issues numerically.
- 10. Graduates of the program should be able to develop an analytical framework for identifying the objectives of the firm and to provide some tools for evaluating the firm's performance.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students in the M.B.A. program must complete a minimum of 36 graduate credit hours. In addition, a prerequisite course in calculus is required. This prerequisite may be waived for students who present satisfactory equivalent preparation. Applicants who have not met this prerequisite may take the course after admission.

The program also includes seven foundation courses. These courses may be waived for students who have taken the equivalent material at the undergraduate level within the past five years and received a minimum grade of B. After a student has been admitted, courses which have not been waived must be completed at the graduate level.

Students are expected to enter the program with basic computing proficiency. Specific expectations will be provided by the Graduate Studies in Business Office. Specific means of evaluating and correcting any deficiency also will be identified.

Curriculum requirements

The curriculum for the M.B.A. program is flexible and is designed for students with diverse undergraduate backgrounds. Students may elect an M.B.A. without a concentration or may choose an M.B.A. with a single or double concentration. Concentrations areas are noted in the related curricular options above.

Most classes are held in the evening to accommodate working students' schedules. Classes typically meet one evening a week from 7 to 9:40 p.m. or twice a week in the early evening from 5:30 to 6:45 p.m. For additional information about the program, visit vcu.edu/mba.

Courses	Credit hours
Foundation courses	21
ACCT 507 Fundamentals of Accounting	3
ECON 500 Concepts in Economics	3
FIRE 520 Financial Concepts of Management	3
MGMT 540 Management Theory and Practice	3
MKTG 570 Concepts and Issues in Marketing	3
SCMA 524 Statistical Fundamentals for Business Management	3

SCMA 530 Fundamentals of the Legal Environment of Business	3
Advanced courses	27
Each student must begin the advanced portion of the program with	
the courses below in each of the first two semesters. Full-time students will take additional courses from the remainder of the	
advanced program.	
duvaneed program.	
Semester one (to be taken at the same time)	6
ECON 610 Managerial Economics	3
MGMT 641 Organizational Leadership and Project Team	3
Management	
Semester two	3
FIRE 623 Financial Management	3
THE 025 Timuncial Management	3
Core courses	18
ACCT 608 Managerial Accounting Concepts	3
INFO 661 Information Systems for Managers	3
INFO 664 Information Systems for Business Intelligence	3
MGMT 642 Business Policy and Strategy	3
MKTG 671 Marketing Management	3
SCMA 675 Operations Management	3
Required concentration course	3
MGMT 637 Advanced Human Resource Management	3
WGWI 057 Auvaneed Human Resource Wanagement	5
Electives	6
Choose two courses from the following list:	
ADIT (2011 D. D. I. (O. '. *	2
ADLT 620 Human Resource Development Overview* ADLT 623 Organizational Learning*	3
ADLT 625 Change Strategies for HRD Practitioners*	3
ECON 631 Labor Market Theory and Analysis	3
FIRE 625 Group Insurance and Pension Planning	3
MGMT 649 Compensation Policy and Administration	3
MGMT 656 Best Practices in Leadership	3
MGMT 680 Health, Safety and Security Administration	3
MGMT 682 Human Resource Staffing	3
MGMT 684 Issues in International Human Resource Management	3
MGMT 691 Topics in Management (when the topic is	3
negotiations)	
SCMA 646 Legal Foundations of Employment	3
	/_ /
	57 (36 if all foundation
Total graduate credit hours required (minimum)	courses are

*Note: Students may take only one of ADLT 620, ADLT 623 or ADLT 625.

Electives and concentrations

Project courses (693), topics courses (691) and guided studies (697) may be available for use toward concentration electives. These courses must be preapproved by the director of graduate studies.

Electives from the School of Business must be 600-level courses and students must satisfy the necessary prerequisites. Courses at the 500- or 600-level taken outside of the School of Business may be used with the permission of the director of graduate studies in business. Students must satisfy the necessary prerequisites for all electives.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the

student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

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Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.) with a concentration in information resources management

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/mba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.)

Business Administration, Master of (M.B.A.) with a concentration in business analytics

Business Administration, Master of (M.B.A.) with a concentration in corporate finance

Business Administration, Master of (M.B.A.) with a concentration in entrepreneurship and innovation

Business Administration, Master of (M.B.A.) with a concentration in global business

Business Administration, Master of (M.B.A.) with a concentration in health care management

Business Administration, Master of (M.B.A.) with a concentration in human capital

Business Administration, Master of (M.B.A.) with a concentration in investments Business Administration, Master of (M.B.A.) with a concentration in real estate Business Administration, Master of (M.B.A.) with a concentration in supply chain management

Apply online at graduate.admissions.vcu.edu.

Summer

Admission requirements

Business Administration, Master of (M.B.A.) with a concentration in information resources management

Degree: Semester(s) of Deadline dates: Test requirements:
M.B.A. entry: GMAT or GRE
Fall Jul 1
Spring Nov 1

Mar 1

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

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Student learning outcomes

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Most classes are held in the evening to accommodate working students' schedules. Classes typically meet one evening a week from 7 to 9:40 p.m. or twice a week in the early evening from 5:30 to 6:45 p.m. For additional information about the program, visit vcu.edu/mba.

Courses	Credit hours
Foundation courses	21
ACCT 507 Fundamentals of Accounting	3
ECON 500 Concepts in Economics	3
FIRE 520 Financial Concepts of Management	3
MGMT 540 Management Theory and Practice	3
MKTG 570 Concepts and Issues in Marketing	3
SCMA 524 Statistical Fundamentals for Business Management	3
SCMA 530 Fundamentals of the Legal Environment of Business	3

Advanced courses

Each student must begin the advanced portion of the program with the courses below in each of the first two semesters. Full-time students will take additional courses from the remainder of the advanced program.

Semester one (to be taken at the same time)		6	
ECON 610 Managerial Economics	3		
MGMT 641 Organizational Leadership and Project Team	3		
Management			
Semester two		3	
FIRE 623 Financial Management	3		
Coure courses		18	

ACCT 608 Managerial Accounting Concepts	3
INFO 661 Information Systems for Managers	3
INFO 664 Information Systems for Business Intelligence	3
MGMT 642 Business Policy and Strategy	3
MKTG 671 Marketing Management	3
SCMA 675 Operations Management	3
Electives	9
Choose three courses from the following list:	
INFO 610 Analysis and Design of Database Systems	3
INFO 611 Data Re-engineering	3
INFO 632 Business Process Engineering	3
INFO 641 Strategic Information Systems Planning	3
INFO 643 Information Technology Project Management (w/permission)	3
INFO/CISS 644 Principles of Computer and Information Systems Security	3
	57 (36 if all

Total graduate credit hours required (minimum) foundation courses are waived)

Electives and concentrations

Project courses (693), topics courses (691) and guided studies (697) may be available for use toward concentration electives. These courses must be preapproved by the director of graduate studies.

Electives from the School of Business must be 600-level courses and students must satisfy the necessary prerequisites. Courses at the 500- or 600-level taken outside of the School of Business may be used with the permission of the director of graduate studies in business. Students must satisfy the necessary prerequisites for all electives.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.) with a concentration in investments

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichem@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/mba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.)

Business Administration, Master of (M.B.A.) with a concentration in business analytics

Business Administration, Master of (M.B.A.) with a concentration in corporate finance

Business Administration, Master of (M.B.A.) with a concentration in entrepreneurship and innovation

Business Administration, Master of (M.B.A.) with a concentration in global business

Business Administration, Master of (M.B.A.) with a concentration in health care management

Business Administration, Master of (M.B.A.) with a concentration in human capital

Business Administration, Master of (M.B.A.) with a concentration in information resources management

Business Administration, Master of (M.B.A.) with a concentration in real estate Business Administration, Master of (M.B.A.) with a concentration in supply chain management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

er(s) of	D III 1.4	
	Deadline dates: Jul 1 Nov 1	Test requirements: GMAT or GRE
	r	Nov 1

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an upto-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on

program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The purpose of the Master of Business Administration program at VCU is to prepare individuals for the responsibilities of management. As students at VCU, individuals will learn the functions and techniques of effective management. The student also will come to understand the environmental and economic factors that affect decision-making in organizations. In short, the student will know what to do as future events unfold that affect his/her firm or organization.

An M.B.A. from VCU benefits students at various points in their careers. Individuals who have recently received their baccalaureate degrees may choose to refine their business skills while their undergraduate training is fresh. Individuals with work experience often find that an M.B.A. is the key to rapid promotion or a career change. Finally, an M.B.A. from VCU meets the needs of students who recognize that the best preparation for an uncertain future is continuous learning.

Student learning outcomes

- Students should be able to demonstrate the capacity to apply business knowledge in new and unfamiliar circumstances.
- Students should be able to demonstrate the ability to work in teams and other groups.
- 3. Students should understand and be able to develop the ethical and social responsibilities of organizations.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Students should be able to identify and understand major issues faced by organizations with evolving information technology and investigate issues and challenges faced by managers with changes in information technology.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Graduates of the program should be able to critically evaluate and use accounting and other information for managerial decision-making.
- 8. Graduates should be able to evaluate marketing programs.
- Students should be able to think critically and systematically about financial issues in businesses to develop techniques to analyze these issues numerically.
- 10. Graduates of the program should be able to develop an analytical framework for identifying the objectives of the firm and to provide some tools for evaluating the firm's performance.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students in the M.B.A. program must complete a minimum of 36 graduate credit hours. In addition, a prerequisite course in calculus is required. This prerequisite may be waived for students who present satisfactory equivalent preparation. Applicants who have not met this prerequisite may take the course after admission.

The program also includes seven foundation courses. These courses may be waived for students who have taken the equivalent material at the undergraduate level within the past five years and received a minimum grade of B. After a student has been admitted, courses which have not been waived must be completed at the graduate level.

Students are expected to enter the program with basic computing proficiency. Specific expectations will be provided by the Graduate Studies in Business Office. Specific means of evaluating and correcting any deficiency also will be identified.

Curriculum requirements

The curriculum for the M.B.A. program is flexible and is designed for students with diverse undergraduate backgrounds. Students may elect an M.B.A. without a concentration or may choose an M.B.A. with a single or double concentration. Concentrations areas are noted in the related curricular options above.

Most classes are held in the evening to accommodate working students' schedules. Classes typically meet one evening a week from 7 to 9:40 p.m. or twice a week in the early evening from 5:30 to 6:45 p.m. For additional information about the program, visit vcu.edu/mba.

Courses	Credit hours
Foundation courses	21
ACCT 507 Fundamentals of Accounting	3
ECON 500 Concepts in Economics	3
FIRE 520 Financial Concepts of Management	3
MGMT 540 Management Theory and Practice	3
MKTG 570 Concepts and Issues in Marketing	3
SCMA 524 Statistical Fundamentals for Business Management	3
SCMA 530 Fundamentals of the Legal Environment of Business	3

Advanced courses

Each student must begin the advanced portion of the program with the courses below in each of the first two semesters. Full-time students will take additional courses from the remainder of the advanced program.

Semester one (to be taken at the same time)	6
ECON 610 Managerial Economics	3
MGMT 641 Organizational Leadership and Project Team Management	3
Semester two	3
FIRE 623 Financial Management	3
Core courses	18
ACCT 608 Managerial Accounting Concepts	3
INFO 661 Information Systems for Managers	3
INFO 664 Information Systems for Business Intelligence	3
MGMT 642 Business Policy and Strategy	3
MKTG 671 Marketing Management	3
SCMA 675 Operations Management	3
Electives	9
Choose three courses from the following list:	
ECON 617 Financial Markets	3
FIRE 622 Financial Management of Financial Institutions	3
FIRE 635 Investments and Security Analysis	3
FIRE 650 Derivatives	3
Total graduate credit hours required (minimum)	57 (36 if all foundation courses are waived)

Electives and concentrations

Project courses (693), topics courses (691) and guided studies (697) may be available for use toward concentration electives. These courses must be preapproved by the director of graduate studies.

Electives from the School of Business must be 600-level courses and students must satisfy the necessary prerequisites. Courses at the 500- or 600-level taken outside of the School of Business may be used with the permission of the director

of graduate studies in business. Students must satisfy the necessary prerequisites for all electives

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.) with a concentration in real estate

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis

Senior director, master's programs androvichcm@vcu.edu

(804) 828-4622

Additional contact

Jana P. McQuaid

Associate dean, master's programs

jpmcquaid@vcu.edu

(804) 828-4622

Program website: business.vcu.edu/graduate/mba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.)

Business Administration, Master of (M.B.A.) with a concentration in business analytics

Business Administration, Master of (M.B.A.) with a concentration in corporate finance

Business Administration, Master of (M.B.A.) with a concentration in entrepreneurship and innovation

Business Administration, Master of (M.B.A.) with a concentration in global business

Business Administration, Master of (M.B.A.) with a concentration in health care

management

Business Administration, Master of (M.B.A.) with a concentration in human capital

Business Administration, Master of (M.B.A.) with a concentration in information resources management

Business Administration, Master of (M.B.A.) with a concentration in investments Business Administration, Master of (M.B.A.) with a concentration in supply chain management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.) with a concentration in real estate				
Degree: M.B.A.	Semester(s) of entry:	Deadline dates:	Test requirements: GMAT or GRE	
	Fall	Jul 1		
	Spring	Nov 1		
	Summer	Mar 1		

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an up-to-date resume

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The purpose of the Master of Business Administration program at VCU is to prepare individuals for the responsibilities of management. As students at VCU, individuals will learn the functions and techniques of effective management. The student also will come to understand the environmental and economic factors that affect decision-making in organizations. In short, the student will know what to do as future events unfold that affect his/her firm or organization.

An M.B.A. from VCU benefits students at various points in their careers. Individuals who have recently received their baccalaureate degrees may choose to refine their business skills while their undergraduate training is fresh. Individuals with work experience often find that an M.B.A. is the key to rapid promotion or a career change. Finally, an M.B.A. from VCU meets the needs of students who recognize that the best preparation for an uncertain future is continuous learning.

Student learning outcomes

- Students should be able to demonstrate the capacity to apply business knowledge in new and unfamiliar circumstances.
- Students should be able to demonstrate the ability to work in teams and other groups.
- Students should understand and be able to develop the ethical and social responsibilities of organizations.

- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Students should be able to identify and understand major issues faced by
 organizations with evolving information technology and investigate issues
 and challenges faced by managers with changes in information technology.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Graduates of the program should be able to critically evaluate and use accounting and other information for managerial decision-making.
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- Students should be able to think critically and systematically about financial issues in businesses to develop techniques to analyze these issues numerically.
- 10. Graduates of the program should be able to develop an analytical framework for identifying the objectives of the firm and to provide some tools for evaluating the firm's performance.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students in the M.B.A. program must complete a minimum of 36 graduate credit hours. In addition, a prerequisite course in calculus is required. This prerequisite may be waived for students who present satisfactory equivalent preparation. Applicants who have not met this prerequisite may take the course after admission.

The program also includes seven foundation courses. These courses may be waived for students who have taken the equivalent material at the undergraduate level within the past five years and received a minimum grade of B. After a student has been admitted, courses which have not been waived must be completed at the graduate level.

Students are expected to enter the program with basic computing proficiency. Specific expectations will be provided by the Graduate Studies in Business Office. Specific means of evaluating and correcting any deficiency also will be identified.

Curriculum requirements

The curriculum for the M.B.A. program is flexible and is designed for students with diverse undergraduate backgrounds. Students may elect an M.B.A. without a concentration or may choose an M.B.A. with a single or double concentration. Concentrations areas are noted in the related curricular options above.

Most classes are held in the evening to accommodate working students' schedules. Classes typically meet one evening a week from 7 to 9:40 p.m. or twice a week in the early evening from 5:30 to 6:45 p.m. For additional information about the program, visit vcu.edu/mba.

Courses	Credit hours
Foundation courses	21
ACCT 507 Fundamentals of Accounting	3
ECON 500 Concepts in Economics	3
FIRE 520 Financial Concepts of Management	3
MGMT 540 Management Theory and Practice	3
MKTG 570 Concepts and Issues in Marketing	3
SCMA 524 Statistical Fundamentals for Business Management	3
SCMA 530 Fundamentals of the Legal Environment of Business	3

Advanced courses

Each student must begin the advanced portion of the program with the courses below in each of the first two semesters. Full-time students will take additional courses from the remainder of the advanced program.

Semester one (to be taken at the same time)		6
ECON 610 Managerial Economics	3	

MGMT 641 Organizational Leadership and Project Team Management	3
Semester two	3
FIRE 623 Financial Management	3
Core courses	18
ACCT 608 Managerial Accounting Concepts	3
INFO 661 Information Systems for Managers	3
INFO 664 Information Systems for Business Intelligence	3
MGMT 642 Business Policy and Strategy	3
MKTG 671 Marketing Management	3
SCMA 675 Operations Management	3
Electives	9
Choose three courses from the following list:	
FIRE 627 Real Estate Development	3
FIRE 629 Real Estate Investment Analysis	3
FIRE 638 Real Property Investment Law	3
FIRE 658 Real Estate Finance and Investments	
TIKE 058 Real Estate Finance and investments	3

Electives and concentrations

Project courses (693), topics courses (691) and guided studies (697) may be available for use toward concentration electives. These courses must be preapproved by the director of graduate studies.

Electives from the School of Business must be 600-level courses and students must satisfy the necessary prerequisites. Courses at the 500- or 600-level taken outside of the School of Business may be used with the permission of the director of graduate studies in business. Students must satisfy the necessary prerequisites for all electives.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.) with a concentration in supply chain management

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid

Associate dean, master's programs jpmcquaid@ycu.edu

(804) 828-4622

Program website: business.vcu.edu/graduate/mba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.)

Business Administration, Master of (M.B.A.) with a concentration in business analytics

Business Administration, Master of (M.B.A.) with a concentration in corporate finance

Business Administration, Master of (M.B.A.) with a concentration in entrepreneurship and innovation

Business Administration, Master of (M.B.A.) with a concentration in global business

Business Administration, Master of (M.B.A.) with a concentration in health care management

Business Administration, Master of (M.B.A.) with a concentration in human capital

Business Administration, Master of (M.B.A.) with a concentration in information resources management

Business Administration, Master of (M.B.A.) with a concentration in investments Business Administration, Master of (M.B.A.) with a concentration in real estate

 ${\bf Apply\ online\ at\ graduate.} admissions.vcu.edu.$

Admission requirements

Business Administration, Master of (M.B.A.) with a concentration in supply chain management			
Degree: M.B.A.	Semester(s) of entry:	Deadline dates:	Test requirements: GMAT or GRE
	Fall	Jul 1	
	Spring	Nov 1	
	Summer	Mar 1	

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The purpose of the Master of Business Administration program at VCU is to prepare individuals for the responsibilities of management. As students at VCU, individuals will learn the functions and techniques of effective management. The student also will come to understand the environmental and economic factors that affect decision-making in organizations. In short, the student will know what to do as future events unfold that affect his/her firm or organization.

An M.B.A. from VCU benefits students at various points in their careers. Individuals who have recently received their baccalaureate degrees may choose to refine their business skills while their undergraduate training is fresh. Individuals with work experience often find that an M.B.A. is the key to rapid promotion or a career change. Finally, an M.B.A. from VCU meets the needs of students who recognize that the best preparation for an uncertain future is continuous learning.

Student learning outcomes

- Students should be able to demonstrate the capacity to apply business knowledge in new and unfamiliar circumstances.
- Students should be able to demonstrate the ability to work in teams and other groups.
- Students should understand and be able to develop the ethical and social responsibilities of organizations.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Students should be able to identify and understand major issues faced by organizations with evolving information technology and investigate issues and challenges faced by managers with changes in information technology.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Graduates of the program should be able to critically evaluate and use accounting and other information for managerial decision-making.
- 8. Graduates should be able to evaluate marketing programs.
- Students should be able to think critically and systematically about financial issues in businesses to develop techniques to analyze these issues numerically.
- 10. Graduates of the program should be able to develop an analytical framework for identifying the objectives of the firm and to provide some tools for evaluating the firm's performance.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students in the M.B.A. program must complete a minimum of 36 graduate credit hours. In addition, a prerequisite course in calculus is required. This prerequisite may be waived for students who present satisfactory equivalent preparation. Applicants who have not met this prerequisite may take the course after admission.

The program also includes seven foundation courses. These courses may be waived for students who have taken the equivalent material at the undergraduate level within the past five years and received a minimum grade of B. After a student has been admitted, courses which have not been waived must be completed at the graduate level.

Students are expected to enter the program with basic computing proficiency. Specific expectations will be provided by the Graduate Studies in Business Office. Specific means of evaluating and correcting any deficiency also will be identified.

Curriculum requirements

The curriculum for the M.B.A. program is flexible and is designed for students with diverse undergraduate backgrounds. Students may elect an M.B.A. without a concentration or may choose an M.B.A. with a single or double concentration. Concentrations areas are noted in the related curricular options above.

Most classes are held in the evening to accommodate working students' schedules. Classes typically meet one evening a week from 7 to 9:40 p.m. or twice a week in the early evening from 5:30 to 6:45 p.m. For additional information about the program, visit vcu.edu/mba.

Courses	Credit hours
Foundation courses	21
ACCT 507 Fundamentals of Accounting	3
ECON 500 Concepts in Economics	3
FIRE 520 Financial Concepts of Management	3
MGMT 540 Management Theory and Practice	3
MKTG 570 Concepts and Issues in Marketing	3
SCMA 524 Statistical Fundamentals for Business Management	3
SCMA 530 Fundamentals of the Legal Environment of Business	3
Advanced courses	
Each student must begin the advanced portion of the program wi the courses below in each of the first two semesters. Full-time students will take additional courses from the remainder of the advanced program.	th
Semester one (to be taken at the same time)	6
ECON 610 Managerial Economics	3
MGMT 641 Organizational Leadership and Project Team Management	3
Semester two	3
FIRE 623 Financial Management	3
Core courses	18
ACCT 608 Managerial Accounting Concepts	3
INFO 661 Information Systems for Managers	3
INFO 664 Information Systems for Business Intelligence	3
MGMT 642 Business Policy and Strategy	3
MKTG 671 Marketing Management	3
SCMA 675 Operations Management	3
Required concentration courses	6
SCMA 677 Quality Management and Six Sigma	3
MGMT 691 Topics in Management (when the topic is supply ch management)	ain 3
Elective	3
Choose one from:	
MKTG 691 Topics in Marketing (when the topic is marketing analytics)	3
SCMA 669 Developing and Implementing Forecasting Methods for Business	3
Total graduate credit hours required (minimum)	57 (36 if all foundation

Total graduate credit hours required (minimum)

courses are

waived)

Electives and concentrations

Project courses (693), topics courses (691) and guided studies (697) may be available for use toward concentration electives. These courses must be preapproved by the director of graduate studies.

Electives from the School of Business must be 600-level courses and students must satisfy the necessary prerequisites. Courses at the 500- or 600-level taken outside of the School of Business may be used with the permission of the director of graduate studies in business. Students must satisfy the necessary prerequisites for all electives.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.)/Information Systems, Master of Science (M.S.) [combined]

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/mbamsinfosys.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.)/Information Systems, Master of Scier (M.S.) [combined]			stems, Master of Science
Degree: M.S. and M.B.A.	Semester(s) of entry:	Deadline dates:	Test requirements: GMAT or GRE
	Fall	Jul 1	
	Spring	Nov 1	

In addition to the general admission requirements of the VCU Graduate School, applicants to the combined Master of Business Administration and Master of Science in Information Systems program must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

Master of Business Administration

The purpose of the Master of Business Administration program at VCU is to prepare individuals for the responsibilities of management. As students at VCU, individuals will learn the functions and techniques of effective management. The student also will come to understand the environmental and economic factors that affect decision-making in organizations. In short, the student will know what to do as future events unfold that affect his/her firm or organization.

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Master of Science in Information Systems

The Master of Science in Information Systems program is designed to prepare students for specialized roles in information systems. The program is intended to provide a graduate-level, technically oriented curriculum that focuses on the design and development of information systems to solve real-world problems. The department's curriculum is focused on the rapidly emerging area known as enterprise information systems. Students may choose a curriculum with no concentration or a concentration in information risk, security and assurance. Graduates of the program are expected to be able to take significant roles in planning, organizing, managing, designing, configuring and implementing EIS systems using state-of-the-art technologies within organizations.

Student learning outcomes

For M.B.A. graduates

 Students should be able to demonstrate the capacity to apply business knowledge in new and unfamiliar circumstances.

- Students should be able to demonstrate the ability to work in teams and other groups.
- Students should understand and be able to develop the ethical and social responsibilities of organizations.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Students should be able to identify and understand major issues faced by organizations with evolving information technology and investigate issues and challenges faced by managers with changes in information technology.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Graduates of the program should be able to critically evaluate and use accounting and other information for managerial decision-making.
- 8. Graduates should be able to evaluate marketing programs.
- Students should be able to think critically and systematically about financial issues in businesses to develop techniques to analyze these issues numerically.
- 10. Graduates of the program should be able to develop an analytical framework for identifying the objectives of the firm and to provide some tools for evaluating the firm's performance.

For M.S. in Information Sciences graduates

- Graduates should be capable of communicating and networking effectively
 within their profession and within their organizations, serving the profession
 by applying this knowledge broadly and maintaining key technical expertise
 in order to sustain required levels of competitiveness.
- Graduates must have an understanding of information technology as it applies to business contexts and the skill to apply this technology effectively in specific circumstances.
- Graduates must be able to develop efficient and effective IS solutions using appropriate technologies that can deliver competitive advantages to organizations.
- Graduates must be able to develop and incorporate changes in the planning and management of IS resources based on an increased understanding of the dynamic changes in the organization, IS and global environments.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students can earn both M.B.A. and M.S. in Information Systems degrees by having 12 credit hours counted toward both degrees.

Students in the combined degree program will follow the same schedule as regular M.B.A. students, including the two lockstep semesters. To get both degrees, students will take all foundation courses required for the M.B.A. (unless waived), all nine core courses required for the M.B.A. and nine additional courses in the M.S. in Information Systems program, including INFO 610, INFO 620 and INFO 630. Students whose undergraduate degrees are not in information systems may also be required to take additional undergraduate prerequisite courses before taking the graduate information systems courses, as determined by the program adviser. The INFO 661 course taken for the M.B.A. will substitute for INFO 640, normally required for the M.S. in Information Systems degree, and three of the additional information systems courses also will count toward the normally required three elective courses in the M.B.A. program.

One of the information systems courses must have substantial global, entrepreneurial and/or experiential components. The six information systems courses to be taken in addition to INFO 661, INFO 664, INFO 610, INFO 620 and INFO 630 must be approved by the program adviser, and would normally be selected to satisfy one of the M.S. in Information Systems concentrations.

Curriculum requirements

Courses Credit hours

Foundation courses		
ACCT 507 Fundamentals of Accounting	3	
ECON 500 Concepts in Economics	3	
FIRE 520 Financial Concepts of Management	3	
MGMT 540 Management Theory and Practice	3	
MKTG 570 Concepts and Issues in Marketing	3	
SCMA 524 Statistical Fundamentals for Business Management	3	
SCMA 530 Fundamentals of the Legal Environment of Business	3	
SCHII 550 I diddinentals of the Legal Environment of Business	3	
M.B.A. course work		
Advanced courses	1	8
Each student must begin the advanced portion of the program with the		
courses below in each of the first two semesters. Full-time students will		
take additional courses from the remainder of the advanced program.		
Semester one (to be taken at the same time)	6	í
ECON 610 Managerial Economics	3	
MGMT 641 Organizational Leadership and Project Team Management	3	
	_	
Semester two	3	j
FIRE 623 Financial Management	3	
Remainder of the advanced program	1	R
ACCT 608 Managerial Accounting Concepts	3	_
INFO 661 Information Systems for Managers	3	
·	3	
INFO 664 Information Systems for Business Intelligence		
MGMT 642 Business Policy and Strategy	3	
MKTG 671 Marketing Management	3	
SCMA 675 Operations Management	3	
Total graduate credit hours required (minimum)	2	7
M.S. in Information Systems course work		
Core courses	9)
INFO 610 Analysis and Design of Database Systems	3	
INFO 620 Data Communications	3	
INFO 630 Systems Development	3	
771 - d	4	_
Electives Choose six courses from the following list:	1	8
Choose six courses from the following fist.		
INFO 611 Data Re-engineering	3	
INFO 614 Data Mining	3	
INFO 616/CISS 616 Data Warehousing	3	
INFO 622 Internet Security Management	3	
INFO 632 Business Process Engineering	3	
INFO 641 Strategic Information Systems Planning	3	
INFO 642 Decision Support and Intelligent Systems	3	
	3	
INFO 643 Information Technology Project Management	-	
INFO 644/CISS 644 Principles of Computer and Information Systems	3	
Security		
INFO 646 Security Policy Formulation and Implementation	2	
INFO 654 Systems Interface Design	3	
TOTAL CARDINA	3	
INFO 658 Electronic Commerce	3	
INFO 691 Topics in Information Systems	3 3 3	
INFO 691 Topics in Information Systems INFO 693 Field Project in Information Systems	3 3 3 3	
INFO 691 Topics in Information Systems	3 3 3	
INFO 691 Topics in Information Systems INFO 693 Field Project in Information Systems	3 3 3 3	4

Students in the combined program who wish to have an M.B.A. concentration other than information resources management would need to complete an additional three courses for the concentration area. Refer to the program search function for a complete list of concentration options.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.)/Information Systems, Master of Science in (M.S.) with a concentration in information technology management [Fast Track Executive] [combined]

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact

Additional Contact
William J. Miller
Executive director, business development
wjmille1@vcu.edu
(804) 828-3491

Program website: business.vcu.edu/graduate/mbamsinfosys.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.)/Information Systems, Master of Science in (M.S.) with a concentration in information technology management [Fast Track Executive] [combined]

Degree: M.B.A.	Semester(s) of entry:	Deadline dates:	Test requirements: GMAT or GRE
	Fall	Jul 1	
M.S.	Spring	Nov 1	
	Spring only	Nov 1 (for early decision)	
		Jan 15 (final decision)	

In addition to the general admission requirements of the VCU Graduate School, applicants to the combined Master of Business Administration and Fast Track Executive Master of Science in Information Systems with a concentration in information technology management program must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

Master of Business Administration

The purpose of the Master of Business Administration program at VCU is to prepare individuals for the responsibilities of management. As students at VCU, individuals will learn the functions and techniques of effective management. The student also will come to understand the environmental and economic factors that affect decision-making in organizations. In short, the student will know what to do as future events unfold that affect his/her firm or organization.

An M.B.A. from VCU benefits students at various points in their careers. Individuals who have recently received their baccalaureate degrees may choose to refine their business skills while their undergraduate training is fresh. Individuals with work experience often find that an M.B.A. is the key to rapid promotion or a career change. Finally, an M.B.A. from VCU meets the needs of students who recognize that the best preparation for an uncertain future is continuous learning.

Master of Science in Information Systems

The Master of Science in Information Systems program is designed to prepare students for specialized roles in information systems. The program is intended to provide a graduate-level, technically oriented curriculum that focuses on the design and development of information systems to solve real-world problems. The department's curriculum is focused on the rapidly emerging area known as enterprise information systems. Students may choose a curriculum with no concentration or a concentration in information risk, security and assurance. Graduates of the program are expected to be able to take significant roles in planning, organizing, managing, designing, configuring and implementing EIS systems using state-of-the-art technologies within organizations.

Student learning outcomes

For M.B.A. graduates

- Students should be able to demonstrate the capacity to apply business knowledge in new and unfamiliar circumstances.
- Students should be able to demonstrate the ability to work in teams and other groups.
- Students should understand and be able to develop the ethical and social responsibilities of organizations.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Students should be able to identify and understand major issues faced by organizations with evolving information technology and investigate issues and challenges faced by managers with changes in information technology.
- Students should be able to describe the factors involved in key operation decisions and to apply appropriately techniques that provide insight and structure for management decision-making.
- Graduates of the program should be able to critically evaluate and use accounting and other information for managerial decision-making.
- 8. Graduates should be able to evaluate marketing programs.
- Students should be able to think critically and systematically about financial issues in businesses to develop techniques to analyze these issues numerically.
- 10. Graduates of the program should be able to develop an analytical framework for identifying the objectives of the firm and to provide some tools for evaluating the firm's performance.

For M.S. in Information Sciences graduates

- Graduates should be capable of communicating and networking effectively
 within their profession and within their organizations, serving the profession
 by applying this knowledge broadly and maintaining key technical expertise
 in order to sustain required levels of competitiveness.
- Graduates must have an understanding of information technology as it applies to business contexts and the skill to apply this technology effectively in specific circumstances.
- Graduates must be able to develop efficient and effective IS solutions using appropriate technologies that can deliver competitive advantages to organizations.
- Graduates must be able to develop and incorporate changes in the planning and management of IS resources based on an increased understanding of the dynamic changes in the organization, IS and global environments.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students can earn both M.B.A. and M.S. in Information Systems degrees by having 12 credit hours counted toward both degrees, thus requiring only 54 credit hours total of advanced course work (not counting foundation courses), rather than the 36 and 30 credit hours normally required for the two degrees.

To obtain both degrees, students will complete the entire 30 credit-hour information system master's program plus six M.B.A. core courses (ECON 610, FIRE 623, ACCT 608, MGMT 642, MGMT 675 and MKTG 671) plus two elective courses. Students must also complete any designated required courses. The course ISTM 671 will substitute for MGMT 641; ISTM 672 will substitute for INFO 661; and ISTM 677 will substitute for INFO 664. ISTM 673 will count toward one of the three required M.B.A. elective courses.

Curriculum requirements

Courses Credit hours

3

Foundation courses

ACCT 507 Fundamentals of Accounting

MGMT 540 Management Theory and Practice 3
MKTG 570 Concepts and Issues in Marketing 3
SCMA 524 Statistical Fundamentals for Business Management 3
SCMA 530 Fundamentals of the Legal Environment of Business 3

Foundation course work not included in 54 hours required for combined degree program

3

3

21

30

54

ECON 500 Concepts in Economics

FIRE 520 Financial Concepts of Management

M.B.A. course work

Advanced core courses

ACCT 608 Managerial Accounting Concepts	3
ECON 610 Managerial Economics	3
FIRE 623 Financial Management	3
MGMT 642 Business Policy and Strategy	3
MKTG 671 Marketing Management	3
SCMA 675 Operations Management	3
Electives (two)	6

Total graduate credit hours required (minimum) for M.B.A. course work

M.S. in Information Systems course work

ISTM 671 Organizational Culture and Team Building	3	
ISTM 672 Information Systems Management	3	
ISTM 673 Analysis and Decisions	3	
ISTM 674 Emerging Technologies	3	
ISTM 675 IS Planning and Project Management	3	
ISTM 676 Information Systems Assurance and Security Management	3	
ISTM 677 Structuring Information for Decision Making	3	
ISTM 678 IS in the Digital Economy	3	
ISTM 679 Enterprise Information Systems	3	
ISTM 691 Topics in IT Management	3	

Total graduate credit hours required (minimum) for M.S. in Information Systems course work

Total graduate credit hours required (minimum)

Students in the combined program who wish to have an M.B.A. concentration other than information resources management would need to complete an additional three courses for the concentration area. Refer to the program search function for a complete list of concentration options.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business Administration, Master of (M.B.A.)/Sport Leadership, Master of Education (M.Ed.) [dual degree]

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact:

Carrie LeCrom, Ph.D.
Interim executive director, Center for Sport Leadership cwlecrom@vcu.edu
804-828-6443

Program website: business.vcu.edu/graduate/sports.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.)
Business Administration, Master of (M.B.A.) [Executive]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.)/Sport Leadership, Master of Education (M.Ed.) [dual degree]			
Degrees: M.B.A. and M.Ed.	Semester(s) of entry: Fall	Deadline dates:	Test requirements: GMAT or GRE

Applicants must meet all general admission requirements of the VCU Graduate School.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The dual-degree M.B.A./M.Ed. in Sport Leadership program will prepare students for leadership positions by combining the business teaching of an M.B.A. program with sport industry-specific knowledge gained in the M.Ed. program. This degree combination recognizes the growing complexity of the sport industry and reinforces the Center for Sport Leadership's commitment to preparing students for the leadership challenges of the future. The dual degree offers students course work and knowledge they will need to be successful in a business setting combined with the application and networking skills required in today's sport industry.

The M.B.A. phase of the program will encompass a problem-based learning style, immersing students in collaborative projects and working situations that are commonplace in the business world. Students will learn business concepts in a real-life context and develop skills in communication, collaboration and teamwork that are essential for success, while developing their abilities to be creative, take initiative and accept personal responsibility for their actions.

The M.Ed. program will combine classroom and practical experience to prepare individuals for leadership positions in the sport industry. An interdisciplinary approach gives students the freedom to choose courses of personal interest and build a foundation of knowledge in their desired career fields.

Student learning outcomes

- Students should be able to demonstrate the capacity to apply business knowledge in new and unfamiliar circumstances.
- Students should be able to demonstrate the ability to work in teams and other groups.
- Students should understand and be able to develop the ethical and social responsibilities of organizations.
- Students should be able to describe the factors involved in key operation decisions and to appropriately apply techniques that provide insight and structure for management decision-making.
- Students should be able to identify and understand major issues faced by organizations with evolving information technology and investigate issues and challenges faced by managers with changes in information technology.
- Graduates of the program should be able to critically evaluate and use accounting and other information for managerial decision-making.
- 7. Graduates should be able to evaluate marketing programs.
- Students should be able to think critically and systematically about financial issues in businesses and to develop techniques to analyze these issues numerically.
- Graduates of the program should be able to develop an analytical framework for identifying the objectives of the firm and to provide some tools for evaluating the firm's performance.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students can complete both degrees with two years of study and will receive both degrees at the conclusion of the entire program. Students may enter the program only in the fall semester.

Curriculum requirements

Courses	Credit hours
ACCT 608 Managerial Accounting Concepts	3
ECON 610 Managerial Economics	3
FIRE 623 Financial Management	3
INFO 661 Information Systems for Managers	3

INFO 664 Information Systems for Business Intelligence MGMT 641 Organizational Leadership and Project Team	3	
Management MGMT 642 Business Policy and Strategy	3	
MKTG 671 Marketing Management	3	
SCMA 675 Operations Management	3	
SPTL 603 Research Methods in Sport	3	
SPTL 608 Sport and Entertainment Event Development	3	
SPTL 610 Sport and Entertainment Event Development	3	
SPTL 630 Sociology of Sport	3	
SPTL 632 Sport Business	3	
SPTL 643 Sport Law	3	
SPTL 695 Externship	1-6	
Electives		9
Choose four courses from the list below.		
Total graduate credit hours required (minimum)		60
Electives		9
ACCT 606 International Accounting	3	
CISS 697 Guided Study	3	
ECON 604 Advanced Microeconomic Theory	3	
ECON 607 Advanced Macroeconomic Theory	3	
ECON 609 Advanced International Economics	3	
ECON 612 Econometrics	3	
ECON 616 Advanced Public Finance	3	
ECON 617 Financial Markets	3	
ECON 620 The Economics of Industry	3	
ECON 631 Labor Market Theory and Analysis ECON 641 Econometric Time-series Analysis	3	
ECON 642 Panel and Nonlinear Methods in Econometrics	3	
ECON 697 Guided Study in Economics	1-3	
ENGR 691 Special Topics in Engineering	3	
ENVS 691 Topics in Environmental Studies	3	
FIRE 621 Cases in Financial Management	3	
FIRE 622 Financial Management of Financial Institutions	3	
FIRE 625 Group Insurance and Pension Planning	3	
FIRE 626 Risk Management	3	
FIRE 627 Real Estate Development	3	
FIRE 629 Real Estate Investment Analysis	3	
FIRE 635 Investments and Security Analysis	3	
FIRE 638 Real Property Investment Law	3	
FIRE 639 International Finance	3	
FIRE 650 Derivatives	3	
FIRE 654 Short-term Financial Management	3	
FIRE 657 Current Issues in Investments and Markets	3	
FIRE 658 Real Estate Finance and Investments	3	
INFO 610 Analysis and Design of Database Systems	3	
INFO 611 Data Re-engineering	3	
INFO 614 Data Mining	3	
INFO 632 Business Process Engineering	3	
INFO/CISS 644 Principles of Computer and Information Systems	3	
INFO/CISS 644 Principles of Computer and Information Systems Security	3	
INFO 691 Topics in Information Systems	1-3	
INFO 697 Guided Study in Information Systems	1-3	
MGMT 637 Advanced Human Resource Management	3	
MGMT 644 International Business Management	3	
MGMT 649 Compensation Policy and Administration	3	
MGMT 655 Entrepreneurship	3	
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MGMT 656 Best Practices in Leadership3MGMT 677 Quality Management and Six Sigma3MGMT 680 Health, Safety and Security Administration3MGMT 682 Human Resource Staffing3MGMT 684 Issues in International Human Resource Management3MGMT 691 Topics in Management1-3MGMT 697 Guided Study in Management1-3MKTG 656 International Marketing3MKTG 657 International Market Planning Project3MKTG 672 Concepts in Consumer Behavior3MKTG 673 Marketing Research3MKTG 674 Service Quality Management3MKTG 691 Topics in Marketing3MKTG 693 Field Project in Marketing3MKTG 697 Guided Study in Marketing1-3OPER 528 Stochastic Simulation3SCMA 632 Statistical Analysis and Modeling3SCMA 643 Applied Multivariate Methods (must have completed SCMA 645 Management Science3SCMA 646 Legal Foundations of Employment3SCMA 669 Developing and Implementing Forecasting Methods for Business3SCMA 677 Quality Management and Six Sigma3SPTL 634 Foundations of Coaching3SPTL 645 Sales and Development3SPTL 645 Sales and Development3SPTL 645 Sales and Development3SPTL 691 Topics in Sport Leadership1-3		
MGMT 680 Health, Safety and Security Administration MGMT 682 Human Resource Staffing MGMT 684 Issues in International Human Resource Management 3 MGMT 691 Topics in Management MGMT 697 Guided Study in Management 1-3 MKTG 656 International Marketing MKTG 657 International Market Planning Project 3 MKTG 672 Concepts in Consumer Behavior 3 MKTG 673 Marketing Research 3 MKTG 674 Service Quality Management 3 MKTG 691 Topics in Marketing 3 MKTG 691 Topics in Marketing 3 MKTG 693 Field Project in Marketing 3 MKTG 697 Guided Study in Marketing 3 MKTG 697 Guided Study in Marketing 3 SCMA 632 Statistical Analysis and Modeling 3 SCMA 632 Statistical Analysis and Modeling 3 SCMA 645 Management Science 3 SCMA 646 Legal Foundations of Employment 3 SCMA 669 Developing and Implementing Forecasting Methods for Business SCMA 677 Quality Management and Six Sigma 3 SPTL 634 Foundations of Coaching 3 SPTL 640 Sport Media and Communications 3 SPTL 645 Sales and Development 3 SPTL 645 Sales and Development	MGMT 656 Best Practices in Leadership	3
MGMT 682 Human Resource Staffing3MGMT 684 Issues in International Human Resource Management3MGMT 691 Topics in Management1-3MGMT 697 Guided Study in Management1-3MKTG 656 International Marketing3MKTG 657 International Market Planning Project3MKTG 672 Concepts in Consumer Behavior3MKTG 673 Marketing Research3MKTG 674 Service Quality Management3MKTG 691 Topics in Marketing3MKTG 693 Field Project in Marketing3MKTG 697 Guided Study in Marketing1-3OPER 528 Stochastic Simulation3SCMA 632 Statistical Analysis and Modeling3SCMA 643 Applied Multivariate Methods (must have completed SCMA 632)3SCMA 645 Management Science3SCMA 669 Developing and Implementing Forecasting Methods for Business3SCMA 677 Quality Management and Six Sigma3SPTL 634 Foundations of Coaching3SPTL 640 Sport Media and Communications3SPTL 645 Sales and Development3	MGMT 677 Quality Management and Six Sigma	3
MGMT 684 Issues in International Human Resource Management MGMT 691 Topics in Management MGMT 697 Guided Study in Management 1-3 MKTG 656 International Marketing MKTG 657 International Market Planning Project 3 MKTG 672 Concepts in Consumer Behavior 3 MKTG 673 Marketing Research 3 MKTG 674 Service Quality Management 3 MKTG 691 Topics in Marketing 3 MKTG 693 Field Project in Marketing 3 MKTG 697 Guided Study in Marketing 3 MKTG 697 Guided Study in Marketing 3 SCMA 632 Statistical Analysis and Modeling 3 SCMA 632 Statistical Analysis and Modeling 3 SCMA 645 Management Science 3 SCMA 646 Legal Foundations of Employment 3 SCMA 669 Developing and Implementing Forecasting Methods for Business SCMA 677 Quality Management and Six Sigma 3 SPTL 634 Foundations of Coaching 3 SPTL 640 Sport Media and Communications 3 SPTL 645 Sales and Development 3 SPTL 645 Sales and Development 3	MGMT 680 Health, Safety and Security Administration	3
MGMT 691 Topics in Management 1-3 MGMT 697 Guided Study in Management 1-3 MKTG 656 International Marketing 3 MKTG 657 International Market Planning Project 3 MKTG 672 Concepts in Consumer Behavior 3 MKTG 673 Marketing Research 3 MKTG 674 Service Quality Management 3 MKTG 691 Topics in Marketing 3 MKTG 693 Field Project in Marketing 3 MKTG 697 Guided Study in Marketing 1-3 OPER 528 Stochastic Simulation 3 SCMA 632 Statistical Analysis and Modeling 3 SCMA 643 Applied Multivariate Methods (must have completed 5 SCMA 645 Management Science 3 SCMA 646 Legal Foundations of Employment 3 SCMA 669 Developing and Implementing Forecasting Methods for 8 Business SCMA 677 Quality Management and Six Sigma 3 SPTL 634 Foundations of Coaching 3 SPTL 644 NCAA Collegiate Coaching 3 SPTL 645 Sales and Development 3 SPTL 645 Sales and Development 3 SPTL 645 Sales and Development 3	MGMT 682 Human Resource Staffing	3
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SCMA 645 Management Science 3 SCMA 646 Legal Foundations of Employment 3 SCMA 669 Developing and Implementing Forecasting Methods for 3 Business SCMA 677 Quality Management and Six Sigma 3 SPTL 634 Foundations of Coaching 3 SPTL 640 Sport Media and Communications 3 SPTL 644 NCAA Collegiate Coaching 3 SPTL 645 Sales and Development 3	11	3
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Business SCMA 677 Quality Management and Six Sigma SPTL 634 Foundations of Coaching 3 SPTL 640 Sport Media and Communications 3 SPTL 644 NCAA Collegiate Coaching 3 SPTL 645 Sales and Development 3	SCMA 646 Legal Foundations of Employment	3
SCMA 677 Quality Management and Six Sigma SPTL 634 Foundations of Coaching 3 SPTL 640 Sport Media and Communications 3 SPTL 644 NCAA Collegiate Coaching 3 SPTL 645 Sales and Development 3		3
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SPTL 644 NCAA Collegiate Coaching 3 SPTL 645 Sales and Development 3	SPTL 634 Foundations of Coaching	3
SPTL 645 Sales and Development 3	SPTL 640 Sport Media and Communications	3
<u>i</u>	SPTL 644 NCAA Collegiate Coaching	3
SPTL 691 Topics in Sport Leadership 1-3	SPTL 645 Sales and Development	3
	SPTL 691 Topics in Sport Leadership	1-3

Note: MGMT 641, MKTG 671, SPTL 695 and one elective (three credit hours) from either program may be counted toward both the M.B.A. and the M.Ed. degrees.

Sample plan of study

Courses		Credit hours
Fall 1		12
ECON 610 Managerial Economics	3	
MGMT 641 Organizational Leadership and Project Team Management	3	
SPTL 603 Research Methods in Sport	3	
SPTL 643 Sport Law	3	
Spring 1		12
FIRE 623 Financial Management	3	
MKTG 671 Marketing Management	3	
SPTL 630 Sociology of Sport	3	
SPTL 632 Sport Business	3	
Summer 1		1-6
SPTL 695 Externship	1-6	
One business elective	1-3	
Fall 2		12
ACCT 608 Managerial Accounting Concepts	3	
INFO 661 Information Systems for Managers	3	
SPTL 608 Sport and Entertainment Event Development	3	
One business or SPTL elective from above or other courses with approval	3	
Spring 2		9

G 2	
One SPTL elective from above or other courses with approval	
SPTL 608 Sport and Entertainment Event Development	3
INFO 661 Information Systems for Managers	3
ACCT 608 Managerial Accounting Concepts	3

Summer 2	
MGMT 642 Business Policy and Strategy	3
One SPTL elective from above or other courses by approval	3

Concentrations

M.B.A./M.Ed. students who wish to have a concentration would need to complete an additional three courses. Refer to the program search function of the online VCU Bulletins for information regarding elective course selection for each M.B.A. concentration area.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Pharmacy, Doctor of (Pharm.D.)/Business Administration, Master of (M.B.A.) [combined]

Graduate program director

Colleen A. Davis
Senior director, master's program
androvichem@vcu.edu
(804) 828-6684

School of Pharmacy contact

Thomas P. Reinders. Ph.D. Associate dean of student affairs School of Pharmacy tpreinde@vcu.edu (804) 828-3000

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

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Program websites: pharmacy.vcu.edu and business.vcu.edu/graduate

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacotherapy

Pharmacology and Toxicology, Master of Science (M.S.)

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)

Pharmacy, Doctor of (Pharm.D.)

Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) [combined]

Pharmacy, Doctor of (Pharm.D.)/Public Health, Master of (M.P.H.) [combined] Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Master of Science (M.S.) [combined]

Apply online at graduate.admissions.vcu.edu.

The Pharm.D./M.B.A. program seeks to prepare pharmacists for careers that encompass pharmacy and business theories and principles. The program is designed to take advantage of efficiencies and electives in both the Pharm.D. and M.B.A. programs. Students in the combined program can earn both degrees and save as much as one year or more over the time required for completing the programs separately.

Students may be admitted into the program during the first year of enrollment in the Pharm.D. program. Applicants must be enrolled in the Pharm.D. program, have demonstrated a good academic record and have successfully completed the Graduate Management Admission Test.

To obtain both degrees, students will take all pharmacy courses unless waived, the seven business foundation courses, the nine M.B.A. core courses and three elective courses. The elective M.B.A. courses may be taken from pharmacy administration courses at the 600 level and a combination of a business seminar course and an elective advanced pharmacy practice experience in pharmacy management. The business foundation courses can be taken during the first two years in the pharmacy program with summer session(s). The M.B.A. core courses can be taken during the third and fourth years in the pharmacy program. The business electives can be taken during the fourth and fifth years in the combined program.

Refer to the program search function of the online VCU Bulletins for a complete description of the curriculum of both programs.

Application to Pharm.D./M.B.A. program

Students interested in pursuing the Pharm.D./M.B.A. program must first obtain admission to the Pharm.D. program. Admitted Pharm.D. students who wish to add the M.B.A. degree must then apply to the M.B.A. program. Upon admission to the M.B.A. program, a Pharm.D. student will be considered a dual-degree-seeking

student. Students generally will register for a mix of School of Business courses and School of Pharmacy courses in the fourth, fifth and sixth semesters of the pharmacy program.

A student categorized as a Pharm.D. student will be charged tuition and fees from the School of Pharmacy and will be eligible to receive financial aid awards as a Pharm.D. student. Students categorized as M.B.A. students will be charged tuition and fee rates as graduate students and be eligible to receive financial awards as graduate students.

Business, Doctor of Philosophy (Ph.D.) with a concentration in accounting

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Jose H. Dula, Ph.D. Interim associate dean for research and doctoral studies jdula@vcu.edu (804) 828-6002

Additional contact

Myung S. Park, Ph.D. Accounting coordinator mspark@vcu.edu (804) 828-3161

Program website: business.vcu.edu/graduate/phd.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business, Doctor of Philosophy (Ph.D.) with a concentration in information systems

Business, Doctor of Philosophy (Ph.D.) with a concentration in management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business, Doctor of Philosophy (Ph.D.) with a concentration in accounting			
Degree: Ph.D.	Semester(s) of entry: Fall	Deadline dates: Jan 1	Test requirements: GMAT
Special require Accounting ma	ements: jors are admitted for the fa	ill of odd-numbered yea	rs.

In addition to the general admission requirements of the VCU Graduate School, applicants to the doctoral program in business must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The Ph.D. in Business program is designed specifically for individuals intending to fill positions at institutions that require a balance of scholarly training, teaching and practical application of the appropriate field of study. With its small size, the program allows for extensive one-to-one interaction between students and faculty. Three concentrations are offered: accounting, information systems and management.

A basic tenet of the Ph.D. in Business program is that the classic trilogy of research, teaching and service typically invoked in university mission statements is synergistic. The program strives to develop graduates who share this perspective and aspire to well-rounded individual roles within universities, colleges and other learning organizations. For this reason, the program provides instruction in both research and teaching.

Instruction in basic and applied research is the cornerstone of the program. To fulfill the requirements for the degree, students must demonstrate successful completion of prerequisite and advanced courses, comprehensive examinations, and completion and defense of a dissertation. The advanced courses provide coverage in basic theories, methodologies and techniques needed to conduct research. The dissertation demonstrates the student's competence in conducting independent research.

Enhancement of teaching skills is emphasized in the program. It provides students with mentoring and teaching experience. Formal instruction designed to augment student teaching skills is also required. Mentoring involves teaming a student with a faculty member with the goal of augmenting student self-awareness and self-confidence in the classroom. Classroom experience is required to insure that the Ph.D. graduate enters the job market with certifiable teaching experience. The formal courses are designed to provide substantive instruction on teaching the adult learner.

A third aspect of the Ph.D. program is its emphasis on practical application in the area of study for students concentrating in accounting. In accounting emphasis is placed on projects based on real-world experience, and students are encouraged to develop papers around topics that address practical application of accounting concepts.

Student learning outcomes

- Students will demonstrate the ability to apply general principles of scientific research and methodologies to critically review published research papers.
- Students will demonstrate the ability to (a) design a research study, (b) select the appropriate methodology and (c) develop the study into a research proposal.
- Students will demonstrate the ability to identify ethical dilemmas in the major area of study and know how to respond ethically to such issues.
- Students will demonstrate an understanding of current knowledge in the major area of study.
- Students will demonstrate the ability to effectively communicate and teach knowledge in the major area of study.
- Students will demonstrate the ability to develop and conduct research in the major area of study (i.e., complete an independent doctoral-level research project pertaining to the state of the art of the student's major area).

Degree requirements

Upon admission to the Ph.D. program, faculty will evaluate students to determine if they have attained a basic competency level in general business disciplines. Students who have already completed a master's degree in business will likely have met all foundation/prerequisite requirements.

Students who enter the Ph.D. in Business without an education in business will be expected to meet the foundation requirements for the intended concentration area of study as determined by their advisers.

In addition to the VCU Graduate School graduation requirements, Ph.D. in Business students must complete a minimum of 53 graduate credit hours, including research tools, concentration and elective course work and a minimum of 12 credit hours of dissertation research. Each student must also take GRAD 602 Teaching, Learning and Technology in Higher Education, complete a teaching portfolio and take a written comprehensive examination in the concentration area.

Curriculum requirements

Courses		Credit hours
Research tools course work		12
As determined by concentration coordinator		
Concentration courses		15
ACCT 790 Research Methods Seminar	3	
ACCT 791 Managerial Accounting Seminar	3	
ACCT 792 Financial Accounting Seminar	3	
ACCT 794 Behavioral Research Seminar	3	
ACCT 795 Auditing Seminar	3	
Required course		2
GRAD 602 Teaching, Learning and Technology in Higher Education	2	
Electives		12
(four additional courses, as approved by concentration coordinator)		
Dissertation research		12
ACCT 898 Dissertation Research in Accounting (minimum of 12 credit hours)	12	
Total graduate credit hours required (minimum)		53

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business, Doctor of Philosophy (Ph.D.) with a concentration in information systems

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Jose H. Dula, Ph.D.

Interim associate dean for research and doctoral studies jdula@vcu.edu

(804) 828-6002

Additional contact

Victoria Y. Yoon, Ph.D.

Information systems coordinator vyyoon@vcu.edu

(804) 828-0672

Program website: business.vcu.edu/graduate/phd.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business, Doctor of Philosophy (Ph.D.) with a concentration in accounting Business, Doctor of Philosophy (Ph.D.) with a concentration in management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements:
Ph.D.	entry:		GMAT or GRE
	Fall	Jan 1	

In addition to the general admission requirements of the VCU Graduate School, applicants to the doctoral program in business must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Ph.D. in Business program is designed specifically for individuals intending to fill positions at institutions that require a balance of scholarly training, teaching and practical application of the appropriate field of study. With its small size, the program allows for extensive one-to-one interaction between students and faculty. Three concentrations are offered: accounting, information systems and management.

A basic tenet of the Ph.D. in Business program is that the classic trilogy of research, teaching and service typically invoked in university mission statements is synergistic. The program strives to develop graduates who share this perspective and aspire to well-rounded individual roles within universities, colleges and other learning organizations. For this reason, the program provides instruction in both research and teaching.

Instruction in basic and applied research is the cornerstone of the program. To fulfill the requirements for the degree, students must demonstrate successful completion of prerequisite and advanced courses, comprehensive examinations, and completion and defense of a dissertation. The advanced courses provide coverage in basic theories, methodologies and techniques needed to conduct research. The dissertation demonstrates the student's competence in conducting independent research.

Enhancement of teaching skills is emphasized in the program. It provides students with mentoring and teaching experience. Formal instruction designed to augment student teaching skills is also required. Mentoring involves teaming a student with a faculty member with the goal of augmenting student self-awareness and self-confidence in the classroom. Classroom experience is required to insure that the Ph.D. graduate enters the job market with certifiable teaching experience. The formal courses are designed to provide substantive instruction on teaching the adult learner.

A third aspect of the Ph.D. program is its emphasis on practical application in the area of study for students concentrating in information systems. In information systems, students usually work on projects brought in to the Information Systems Research Institute. These projects focus on user applications and emphasize solutions to specific requirements.

Student learning outcomes

- Students will demonstrate the ability to apply general principles of scientific research and methodologies to critically review published research papers.
- Students will demonstrate the ability to (a) design a research study, (b) select the appropriate methodology and (c) develop the study into a research proposal.
- Students will demonstrate the ability to identify ethical dilemmas in the major area of study and know how to respond ethically to such issues.
- Students will demonstrate an understanding of current knowledge in the major area of study.
- Students will demonstrate the ability to effectively communicate and teach knowledge in the major area of study.
- Students will demonstrate the ability to develop and conduct research in the major area of study (i.e., complete an independent doctoral-level research project pertaining to the state of the art of the student's major area).

Degree requirements

Upon admission to the Ph.D. program, faculty will evaluate students to determine if they have attained a basic competency level in general business disciplines. Students who have already completed a master's degree in business will likely have met all foundation/prerequisite requirements.

Students who enter the Ph.D. in Business without an education in business will be expected to meet the foundation requirements for the intended concentration area of study as determined by their advisers.

In addition to the VCU Graduate School graduation requirements, Ph.D. in Business students must complete a minimum of 59 graduate credit hours, including research tools, concentration and elective course work and a minimum of 12 credit hours of dissertation research. Each student must also take GRAD 602 Teaching, Learning and Technology in Higher Education, complete a teaching portfolio and take a written comprehensive examination in the concentration area.

Curriculum requirements

Courses		Credit hours
Research tools course work (as determined by concentration coordinator)		18
Concentration courses		21
INFO 710 Database Systems	3	
INFO 720 Analysis and Design of Systems	3	
INFO 730 Information Systems Strategy	3	

INFO 740 Decision Support and Intelligent Systems	3	
INFO 750 Information Systems Security	3	
INFO 760 Knowledge Management	3	
INFO 790 Doctoral Seminar	3	
Required course		2
GRAD 602 Teaching, Learning and Technology in Higher Education	2	
Electives		6
(two additional courses, as approved by concentration coordinator)		
Dissertation research		12
INFO 898 Dissertation Research in Information Systems (minimum	12	
of 12 credit hours)		
Total graduate credit hours required (minimum)		59

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business, Doctor of Philosophy (Ph.D.) with a concentration in management

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Jose H. Dula, Ph.D.

Interim associate dean for research and doctoral studies jdula@vcu.edu

(804) 828-6002

Additional contact

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Professor, Department of Management

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(804) 828-8884

Program website: business.vcu.edu/graduate/phd.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business, Doctor of Philosophy (Ph.D.) with a concentration in accounting Business, Doctor of Philosophy (Ph.D.) with a concentration in information systems

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business , Doct	or of Philosophy (Ph.D.)	with a concentration i	n management
Degree: Ph.D.	Semester(s) of entry: Fall	Deadline dates: Jan 1	Test requirements: GMAT or GRE
Special require Management m	ements: ajors are admitted for the	fall of odd-numbered ye	ears.

In addition to the general admission requirements of the VCU Graduate School, applicants to the doctoral program in business must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Ph.D. in Business program is designed specifically for individuals intending to fill positions at institutions that require a balance of scholarly training, teaching and practical application of the appropriate field of study. With its small size, the program allows for extensive one-to-one interaction between students and faculty. Three concentrations are offered: accounting, information systems and management.

A basic tenet of the Ph.D. in Business program is that the classic trilogy of research, teaching and service typically invoked in university mission statements is synergistic. The program strives to develop graduates who share this perspective and aspire to well-rounded individual roles within universities, colleges and other learning organizations. For this reason, the program provides instruction in both research and teaching.

Instruction in basic and applied research is the cornerstone of the program. To fulfill the requirements for the degree, students must demonstrate successful completion of prerequisite and advanced courses, comprehensive examinations, and completion and defense of a dissertation. The advanced courses provide coverage in basic theories, methodologies and techniques needed to conduct research. The dissertation demonstrates the student's competence in conducting independent research.

Enhancement of teaching skills is emphasized in the program. It provides students with mentoring and teaching experience. Formal instruction designed to augment

student teaching skills is also required. Mentoring involves teaming a student with a faculty member with the goal of augmenting student self-awareness and self-confidence in the classroom. Classroom experience is required to insure that the Ph.D. graduate enters the job market with certifiable teaching experience. The formal courses are designed to provide substantive instruction on teaching the adult learner.

Student learning outcomes

- Students will demonstrate the ability to apply general principles of scientific research and methodologies to critically review published research papers.
- Students will demonstrate the ability to (a) design a research study, (b) select the appropriate methodology and (c) develop the study into a research proposal.
- Students will demonstrate the ability to identify ethical dilemmas in the major area of study and know how to respond ethically to such issues.
- Students will demonstrate an understanding of current knowledge in the major area of study.
- Students will demonstrate the ability to effectively communicate and teach knowledge in the major area of study.
- Students will demonstrate the ability to develop and conduct research in the major area of study (i.e., complete an independent doctoral-level research project pertaining to the state of the art of the student's major area).

Degree requirements

Upon admission to the Ph.D. program, faculty will evaluate students to determine if they have attained a basic competency level in general business disciplines. Students who have already completed a master's degree in business will likely have met all foundation/prerequisite requirements.

Students who enter the Ph.D. in Business without an education in business will be expected to meet the foundation requirements for the intended concentration area of study as determined by their advisers.

In addition to the VCU Graduate School graduation requirements, Ph.D. in Business students must complete a minimum of 56 graduate credit hours, including research tools, concentration and elective course work and a minimum of 12 credit hours of dissertation research. Each student must also take GRAD 602 Teaching, Learning and Technology in Higher Education, complete a teaching portfolio and take a written comprehensive examination in the concentration area.

Curriculum requirements

Courses	_	Credit nours
Research tools course work		12
As determined by concentration coordinator		
Concentration courses		18
MGMT 737 Seminar in Human Resources	3	
MGMT 738 Special Focus in Human Resource Management:	3	
	3	
MGMT 746 Cognitive and Emotional Processes in Organizations	3	
MGMT 747 Seminar in Human Resources: Macro Foundations	3	
MGMT 750 Attitudes and Motivation in Organizations	3	
Required course GRAD 602 Teaching, Learning and Technology in Higher Education 2	2	2
Electives (four additional courses, as approved by concentration coordinator)		12
Dissertation research	12	12

Total graduate credit hours required (minimum)

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Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business, Master of Science (M.S.) with a concentration in branding/art direction

Graduate program director

Ashley H. Sommardahl Director of student affairs and industry outreach asommardahl@vcu.edu (804) 828-8384

Additional contact

Hawley A. Smyth Admissions coordinator smythh@vcu.edu (804) 828-8384

Program website: brandcenter.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business, Master of Science (M.S.) with a concentration in branding/communications strategy

Business, Master of Science (M.S.) with a concentration in branding/copywriting Business, Master of Science (M.S.) with a concentration in branding/creative brand management

Business, Master of Science (M.S.) with a concentration in branding/creative technology

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.S.	entry:		
	Fall	April 15 (final	
		deadline for	
		international	
		students)	
		May 15	

Special requirements

Contact the VCU Brandcenter for specific admission requirements to the branding program and concentrations: Call (800) 311-3341 toll-free, or visit our website at brandcenter.vcu.edu.

In addition to the general admission requirements of the VCU Graduate School, applicants to the branding/art direction concentration must have a working knowledge of Photoshop and InDesign and knowledge of layout, design and typography. Applicants must have at least one year of working experience or have taken an undergraduate course or a tutorial in these skills.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The VCU Brandcenter offers graduate study in advertising and branding. The program provides advanced preparation for creative and strategic advertising development. The branding concentration of the Master of Science in Business with a concentration in branding is divided into five focus areas.

The working environment at the Brandcenter is similar to an advertising agency: Teams of students work together to develop campaigns. After the first year, qualified students are offered internships where they experience ad agency life and foster industry relationships. In their second year, students are given the opportunity to network through a mentoring program in which they are matched with agency professionals who offer advice and assistance.

Student learning outcomes

- Presentation skills: Students will demonstrate the ability to effectively present/sell their ideas in a clear, concise and compelling manner.
- Collaboration: Students will demonstrate their ability to work together in cross-functional teams/groups (i.e., copywriter, art director, strategist, brand manager, creative technologist) to develop viable business/marketing solutions.
- Creative and critical problem-solving: Students will demonstrate the ability
 to research consumer culture (via secondary research, syndicated research
 and qualitative/quantitative research methods) and evaluate consumer media/
 technology usage habits to develop media-neutral business solutions.

- Culture: Students will demonstrate an appreciation, interest in and openness for different cultures (both national and international) yielding more relevant, culturally savvy business solutions.
- Craft: Students will demonstrate the ability to execute specific skills related
 to their individual subconcentration. For art direction these include solid
 layout/typography skills and strong conceptual thinking ability.

Degree requirements

The M.S. in Business with a concentration in branding requires 42 graduate credit hours beyond the baccalaureate degree. Students devote two years of full-time study to complete the degree requirements. In addition to the VCU Graduate School graduation requirements, all students in the Brandcenter must complete a core curriculum as well as courses required for a specific subconcentration and must present a final major project, in portfolio form, before a committee review panel.

Curriculum requirements

Courses	Credit hours
Core	18
BRND 638 Brand Engagement	3
BRND 651 Creative Thinking	3
BRND 655 Brand Interaction	3
BRND 659 Brand Experiences	3
BRND 664 Persuasion	3
BRND 677 The Business of Branding	3
Branding/art direction	24
BRND 601 Digital Suite	1
BRND 622 Visual Storytelling	3
BRND 630 Problem Solving for Art Directors	3
BRND 631 Craft	3
BRND 652 Concept Development	3
BRND 653 Portfolio Development	3
BRND 670 Creative Fusion	3
BRND 673 Experimentation	2
BRND 678 Professional Possibilities	1
BRND 696 Individuation	2
Total graduate credit hours required (minimum)	42

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business, Master of Science (M.S.) with a concentration in branding/communications strategy

Graduate program director

Ashley H. Sommardahl
Director of student affairs and industry outreach
asommardahl@vcu.edu
(804) 828-8384

Additional contact

Hawley A. Smyth Admissions coordinator smythh@vcu.edu (804) 828-8384

Program website: brandcenter.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business, Master of Science (M.S.) with a concentration in branding/art direction Business, Master of Science (M.S.) with a concentration in branding/copywriting Business, Master of Science (M.S.) with a concentration in branding/creative brand management

Business, Master of Science (M.S.) with a concentration in branding/creative technology

Apply online at graduate.admissions.vcu.edu.

Admission requirements

brandcenter.vcu.edu.

Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GMAT or GRE
	Fall	April 15 (final deadline for international students) May 15	

In addition to the general admission requirements of the VCU Graduate School, applicants to the branding/communications strategy concentration must be proficient in Excel, PowerPoint/Keynote and Pages. The admissions committee is looking for a minimum GRE score of around 300 (current scoring) or 1100 (former scoring) or a minimum GMAT score of around 540.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The VCU Brandcenter offers graduate study in advertising and branding. The program provides advanced preparation for creative and strategic advertising development. The branding concentration of the Master of Science in Business with a concentration in branding is divided into five focus areas.

The working environment at the Brandcenter is similar to an advertising agency: Teams of students work together to develop campaigns. After the first year, qualified students are offered internships where they experience ad agency life and foster industry relationships. In their second year, students are given the opportunity to network through a mentoring program in which they are matched with agency professionals who offer advice and assistance.

Student learning outcomes

- Presentation skills: Students will demonstrate the ability to effectively present/sell their ideas in a clear, concise and compelling manner.
- Collaboration: Students will demonstrate their ability to work together in cross-functional teams/groups (i.e., copywriter, art director, strategist, brand manager, creative technologist) to develop viable business/marketing solutions.
- Creative and critical problem-solving: Students will demonstrate the ability
 to research consumer culture (via secondary research, syndicated research
 and qualitative/quantitative research methods) and evaluate consumer media/
 technology usage habits to develop media-neutral business solutions.
- Culture: Students will demonstrate an appreciation, interest in and openness for different cultures (both national and international) yielding more relevant, culturally savvy business solutions.
- 5. Craft: Students will demonstrate the ability to execute specific skills related to their individual subconcentration. For communications strategy these include a solid understanding of consumer behavior, qualitative and quantitative research methods and strategic thinking ability.

Degree requirements

The M.S. in Business with a concentration in branding requires 42 graduate credit hours beyond the baccalaureate degree. Students devote two years of full-time study to complete the degree requirements. In addition to the VCU Graduate School graduation requirements, all students in the Brandcenter must complete a core curriculum as well as courses required for a specific subconcentration and must present a final major project, in portfolio form, before a committee review panel.

Curriculum requirements

Courses	Credit hours
Core	18
BRND 638 Brand Engagement	3
BRND 651 Creative Thinking	3
BRND 655 Brand Interaction	3
BRND 659 Brand Experiences	3
BRND 664 Persuasion	3
BRND 677 The Business of Branding	3

Branding/communications strategy		24
BRND 627 Visual Storytelling for Strategists	2	
BRND 629 Strategic Thinking	3	
BRND 639 Consumer Culture	3	
BRND 647 Insights and Implications	3	
BRND 648 Innovation	2	
BRND 649 Brand Analytics	3	
BRND 656 Supervised Research Study	1	
BRND 661 Modern Media	3	
BRND 662 Research Methodologies	3	
BRND 678 Professional Possibilities	1	

Total graduate credit hours required (minimum)

42

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business, Master of Science (M.S.) with a concentration in branding/copywriting

Graduate program director

Ashley H. Sommardahl Director of student affairs and industry outreach asommardahl@vcu.edu (804) 828-8384

Additional contact

Hawley A. Smyth Admissions coordinator smythh@vcu.edu (804) 828-8384

Program website: brandcenter.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business, Master of Science (M.S.) with a concentration in branding/art direction Business, Master of Science (M.S.) with a concentration in branding/ communications strategy

Business, Master of Science (M.S.) with a concentration in branding/creative brand management

Business, Master of Science (M.S.) with a concentration in branding/creative technology

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.S.	entry:		^
	Fall	April 15 (final	
		deadline for	
		international	
		students)	
		May 15	

Contact the VCU Brandcenter for specific admission requirements to the branding program and concentrations: Call (800) 311-3341 toll-free, or visit our website at brandcenter.vcu.edu

In addition to the general admission requirements of the VCU Graduate School, applicants to the branding/copywriting concentration must have received a baccalaureate degree from an accredited college or university with demonstrated ability to perform at the graduate level.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

> General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The VCU Brandcenter offers graduate study in advertising and branding. The program provides advanced preparation for creative and strategic advertising development. The branding concentration of the Master of Science in Business with a concentration in branding is divided into five focus areas.

The working environment at the Brandcenter is similar to an advertising agency: Teams of students work together to develop campaigns. After the first year, qualified students are offered internships where they experience ad agency life and foster industry relationships. In their second year, students are given the opportunity to network through a mentoring program in which they are matched with agency professionals who offer advice and assistance.

Student learning outcomes

- 1. Presentation skills: Students will demonstrate the ability to effectively present/sell their ideas in a clear, concise and compelling manner.
- Collaboration: Students will demonstrate their ability to work together in cross-functional teams/groups (i.e., copywriter, art director, strategist, brand manager, creative technologist) to develop viable business/marketing solutions.
- 3. Creative and critical problem-solving: Students will demonstrate the ability to research consumer culture (via secondary research, syndicated research and qualitative/quantitative research methods) and evaluate consumer media/ technology usage habits to develop media-neutral business solutions.
- Culture: Students will demonstrate an appreciation, interest in and openness for different cultures (both national and international) yielding more relevant, culturally savvy business solutions.
- Craft: Students will demonstrate the ability to execute specific skills related to their individual subconcentration. For copywriting these include solid writing skills and strong conceptual thinking ability.

Degree requirements

The M.S. in Business with a concentration in branding requires 42 graduate credit hours beyond the baccalaureate degree. Students devote two years of full-time study to complete the degree requirements. In addition to the VCU Graduate School graduation requirements, all students in the Brandcenter must complete a core curriculum as well as courses required for a specific subconcentration and must present a final major project, in portfolio form, before a committee review

Curriculum requirements

Courses	Credit hours
Core	18
BRND 638 Brand Engagement	3
BRND 651 Creative Thinking	3
BRND 655 Brand Interaction	3
BRND 659 Brand Experiences	3
BRND 664 Persuasion	3
BRND 677 The Business of Branding	3
Branding/copywriting	24
BRND 601 Digital Suite	1
BRND 622 Visual Storytelling	3
BRND 631 Craft	3
BRND 640 Problem Solving	3
BRND 652 Concept Development	3
BRND 653 Portfolio Development	3
BRND 670 Creative Fusion	3
BRND 673 Experimentation	2
BRND 678 Professional Possibilities	1
BRND 696 Individuation	2

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

42

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business, Master of Science (M.S.) with a concentration in branding/creative brand management

Graduate program director

Ashley H. Sommardahl Director of student affairs and industry outreach asommardahl@vcu.edu (804) 828-8384

Additional contact

Hawley A. Smyth Admissions coordinator smythh@vcu.edu (804) 828-8384

Program website: brandcenter.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business, Master of Science (M.S.) with a concentration in branding/art direction Business, Master of Science (M.S.) with a concentration in branding/communications strategy

Business, Master of Science (M.S.) with a concentration in branding/copywriting Business, Master of Science (M.S.) with a concentration in branding/creative technology

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business, Master of Science (M.S.) with a concentration in branding/creative brand management			
Degree: M.S.	Semester(s) of entry: Fall	Deadline dates: April 15 (final deadline for international students) May 15	Test requirements: GMAT or GRE

Special requirements:

Contact the VCU Brandcenter for specific admission requirements to the branding program and concentrations: Call (800) 311-3341 toll-free, or visit our website at brandcenter.vcu.edu.

In addition to the general admission requirements of the VCU Graduate School, applicants to the creative brand management concentration must be proficient in Excel, PowerPoint/Keynote and Pages and must have successfully completed a college math class. The admissions committee is looking for a minimum GRE

score of around 300 (current scoring) or 1100 (former scoring) or a minimum GMAT score of around 540.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The VCU Brandcenter offers graduate study in advertising and branding. The program provides advanced preparation for creative and strategic advertising development. The branding concentration of the Master of Science in Business with a concentration in branding is divided into five focus areas.

The working environment at the Brandcenter is similar to an advertising agency: Teams of students work together to develop campaigns. After the first year, qualified students are offered internships where they experience ad agency life and foster industry relationships. In their second year, students are given the opportunity to network through a mentoring program in which they are matched with agency professionals who offer advice and assistance.

Student learning outcomes

- Presentation skills: Students will demonstrate the ability to effectively present/sell their ideas in a clear, concise and compelling manner.
- Collaboration: Students will demonstrate their ability to work together in cross-functional teams/groups (i.e., copywriter, art director, strategist, brand manager, creative technologist) to develop viable business/marketing solutions.
- Creative and critical problem-solving: Students will demonstrate the ability
 to research consumer culture (via secondary research, syndicated research
 and qualitative/quantitative research methods) and evaluate consumer media/
 technology usage habits to develop media-neutral business solutions.
- Culture: Students will demonstrate an appreciation, interest in and openness for different cultures (both national and international) yielding more relevant, culturally savvy business solutions.
- Craft: Students will demonstrate the ability to execute specific skills related to their individual subconcentration. For creative brand management these include a solid understanding of consumer behavior and corporate brand building.

Degree requirements

The M.S. in Business with a concentration in branding requires 42 graduate credit hours beyond the baccalaureate degree. Students devote two years of full-time study to complete the degree requirements. In addition to the VCU Graduate School graduation requirements, all students in the Brandcenter must complete a core curriculum as well as courses required for a specific subconcentration and must present a final major project, in portfolio form, before a committee review panel.

Curriculum requirements

Courses	Credit hours
Core	18
BRND 638 Brand Engagement	3
BRND 651 Creative Thinking	3
BRND 655 Brand Interaction	3
BRND 659 Brand Experiences	3
BRND 664 Persuasion	3
BRND 677 The Business of Branding	3
Branding/creative brand management	24
BRND 608 Accounting for Communication Professionals	3
BRND 629 Strategic Thinking	3
BRND 632 Foundations of Brand Management	2
BRND 649 Brand Analytics	3
BRND 661 Modern Media	3
BRND 662 Research Methodologies	3
BRND 667 Applied Brand Management	3
BRND 668 Advanced Brand Management	3
BRND 690 Supervised Business Study	1
Total graduate credit hours required (minimum)	42

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business, Master of Science (M.S.) with a concentration in branding/creative technology

Graduate program director Ashley H. Sommardahl

Director of student affairs and industry outreach asommardahl@vcu.edu (804) 828-8384

Additional contact

Hawley A. Smyth Admissions coordinator smythh@vcu.edu (804) 828-8384

Program website: brandcenter.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business, Master of Science (M.S.) with a concentration in branding/art direction Business, Master of Science (M.S.) with a concentration in branding/ communications strategy

Business, Master of Science (M.S.) with a concentration in branding/copywriting Business, Master of Science (M.S.) with a concentration in branding/creative brand management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business, Master of Science (M.S.) with a concentration in branding/creative technology			
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements:
	Fall	April 15 (final deadline for international students) May 15	

Contact the VCU Brandcenter for specific admission requirements to the branding program and concentrations: Call (800) 311-3341 toll-free, or visit our website at brandcenter.vcu.edu.

In addition to the general admission requirements of the VCU Graduate School, applicants must have a working knowledge of the Adobe Creative Suite and light HTML/CSS knowledge and have a specialty such as video production, animation, 3-D imaging, design, writing, etc.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

> General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The VCU Brandcenter offers graduate study in advertising and branding. The program provides advanced preparation for creative and strategic advertising development. The branding concentration of the Master of Science in Business with a concentration in branding is divided into five focus areas.

The working environment at the Brandcenter is similar to an advertising agency: Teams of students work together to develop campaigns. After the first year, qualified students are offered internships where they experience ad agency life and foster industry relationships. In their second year, students are given the opportunity to network through a mentoring program in which they are matched with agency professionals who offer advice and assistance.

Student learning outcomes

- Presentation skills: Students will demonstrate the ability to effectively present/sell their ideas in a clear, concise and compelling manner.
- Collaboration: Students will demonstrate their ability to work together in cross-functional teams/groups (i.e., copywriter, art director, strategist, brand manager, creative technologist) to develop viable business/marketing solutions.
- Creative and critical problem-solving: Students will demonstrate the ability
 to research consumer culture (via secondary research, syndicated research
 and qualitative/quantitative research methods) and evaluate consumer media/
 technology usage habits to develop media-neutral business solutions.
- Culture: Students will demonstrate an appreciation, interest in and openness for different cultures (both national and international) yielding more relevant, culturally savvy business solutions.
- Craft: Students will demonstrate the ability to execute specific skills related to their individual subconcentration. For creative technology these include a solid understanding of technology and how consumers can engage with brands through the use of technology.

Degree requirements

The M.S. in Business with a concentration in branding requires 42 graduate credit hours beyond the baccalaureate degree. Students devote two years of full-time study to complete the degree requirements. In addition to the VCU Graduate School graduation requirements, all students in the Brandcenter must complete a core curriculum as well as courses required for a specific subconcentration and must present a final major project, in portfolio form, before a committee review panel.

Curriculum requirements

Courses	Credit hours
Core	18
BRND 638 Brand Engagement	3
BRND 651 Creative Thinking	3
BRND 655 Brand Interaction	3
BRND 659 Brand Experiences	3
BRND 664 Persuasion	3
BRND 677 The Business of Branding	3
Branding/creative technology	24
BRND 609 Information Architecture	3
BRND 622 Visual Storytelling	3
BRND 633 User Participation Platforms	2
BRND 634 Mobility	2
BRND 635 Creating Gravitational Pull	3
BRND 636 Data Cultivation	2
BRND 637 Adaptive Experiences	3
BRND 666 Futurology	3
BRND 674 Applied Creative Technology	3
Total graduate credit hours required (minimum)	42

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a

formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business, Master of Science (M.S.) with a concentration in decision analytics

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichem@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/dsba.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business, Master of Science (M.S.) with a concentration in branding Business, Master of Science (M.S.) with a concentration in finance Business, Master of Science (M.S.) with a concentration in global marketing management Business, Master of Science (M.S.) with a concentration in real estate valuation

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business, Master of Science (M.S.) with a concentration in decision analytics			
Degree: M.S.	Semester(s) of entry: Fall Spring	Deadline dates: Jul 1 Nov 1	Test requirements: GMAT or GRE
	Summer	Mar 1	

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Science in Business with a concentration in decision analytics provides students with knowledge of the statistical, mathematical and scientific skills and experience necessary to utilize advanced methods of data analysis for business decision-making.

Student learning outcomes

- After examining a situation/problem, students will be able to develop appropriate hypotheses along with a method for testing them and be able to draw logical conclusions and make reasonable decisions based on available information.
- Students will be able to apply quantitative procedures to obtain solutions for real-world problems.
- Students will be able to appropriately address the target audience, use proper organization, create clear graphical displays and express ideas with clarity and grammatical correctness.
- Students will be able to show a clear understanding of the ethical nature of the issue and recommend appropriate action.

Degree requirements

The concentration in decision analytics provides students with knowledge of quantitative skills and experience in analyzing problems and using data for decision-making in a business environment. Depending upon individual student interests and adviser approval, the required nucleus is supplemented with relevant elective courses from within the School of Business or from outside departments.

In addition to the VCU Graduate School graduation requirements:

- All students must have completed a course in calculus prior to attempting graduate business courses. This prerequisite can be met after admission to the program.
- 2. Students must complete up to four classes (0 to 12 credit hours) of foundation course work. At the time of application, all undergraduate and graduate transcripts will be reviewed to determine if the following courses may be waived. Waiver of a foundation course may be awarded when a student demonstrates equivalent knowledge, such as completing the required undergraduate equivalent course with minimum grade of C.

Curriculum requirements

Courses	Credit hours
Prerequisite	3

Total graduate credit hours required (minimum)	45 (30 if) and all fo	prerequisite undation
Senit 070 Operations management	5	
SCMA 675 Operations Management	3	
OPER 643 Decision and Risk Analysis	3	
OPER/STAT 636 Machine Learning Algorithms	3	
OPER 528 Stochastic Simulation	3	
MKTG 673 Marketing Research	3	
MGMT 642 Business Policy and Strategy MGMT 697 Guided Study in Management	3	
MGMT 642 Business Policy and Strategy	3	
INFO 611 Data Re-engineering INFO 616 Data Warehousing	3	
FIRE 635 Investments and Security Analysis	3	
FIRE 629 Real Estate Investment Analysis	3	
ECON 612 Econometrics EIDE 620 Peal Estate Investment Analysis	3	
ECON 610 Managerial Economics	3	
	3	
ACCT 608 Managerial Accounting Concepts ECON 501 Introduction to Econometrics	3	
Ç		
Choose four courses from the following:		12
Approved electives		12
SCMA 677 Quality Management and Six Sigma	3	
SCMA 669 Developing and Implementing Forecasting Methods for Business	3	
making	3	
SCMA 643 Applied Multivariate Methods SCMA 648 Analytics for Organizational Decision-	3	
INFO 614 Data Mining	3	
INFO 610 Analysis and Design of Database Systems	3	
· ·	2	
Additional requirements Choose three courses from the following:		7
Additional requirements		9
SCMA 645 Management Science	3	
SCMA 632 Statistical Analysis and Modeling	3	
Intelligence		
Required core courses INFO 664 Information Systems for Business	3	9
		0
Business	5	
SCMA 530 Fundamentals of the Legal Environment of		
MGMT 540 Management Theory and Practice MKTG 570 Concepts and Issues in Marketing	3	
INFO 364 Database Systems MGMT 540 Management Theory and Practice	3	
FIRE 520 Financial Concepts of Management	3	
ECON 500 Concepts in Economics	3	
ACCT 507 Fundamentals of Accounting	3	
· ·		
Management Choose three courses from the following:		
SCMA 524 Statistical Fundamentals for Business	3	
Foundation courses		0-12
Foundation for Decision-making)		
Calculus (SCMA 212 Differential Calculus and Optimization for Business or SCMA 500 Quantitative	3	

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a

courses are waived)

formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business, Master of Science (M.S.) with a concentration in decision analytics – professional track

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/analytics.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business, Master of Science (M.S.) with a concentration in branding Business, Master of Science (M.S.) with a concentration in finance

Business, Master of Science (M.S.) with a concentration in global marketing management

Business, Master of Science (M.S.) with a concentration in real estate valuation

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business, Master of Science (M.S.) with a concentration in decision analytics – professional track			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.S.	entry:		GMAT or GRE
	Fall	Apr 15	

In addition to the general admission requirements of the VCU Graduate School, applicants should have three years of work experience in an application area. Students without the required work experience may take six credit hours of graduate-level courses in an application area prior to acceptance into the program.

Applicants are expected to have successfully completed an undergraduate or graduate course in statistics, and it is preferable that they have programming experience. Exceptions may be made at the discretion of the program director.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The M.S. program provides in-depth knowledge of one business discipline and allows students to develop and build technical skills in their specific areas of interest. It is frequently recommended for students with undergraduate business degrees.

Student learning outcomes

- Database structures and query: Students will have an understanding of basic database structures, be able to query databases and organize data for analysis.
- Quantitative skills: Students will be able to identify appropriate data analysis approaches to address real-world problems. They will be able to perform the analysis using commercial software.
- Problem formulation: Students will have the knowledge, skills and practice
 to taking nonquantitative and perhaps ill-formed problems and issues and
 determining ways objective analysis can bring organization and insight to
 them. They will be able to determine data requirements and query available
 databases.
- Analytics applications: Students will experience various applications of analytics in real situations.
- Technical communications: Students will be able to communicate analytical analysis and results effectively to nonquantitative audiences. This includes informal discussions, formal presentations and written reports.
- Teamwork: Students will develop skills in organizing, interacting and analyzing real problems as members of a team.

Degree requirements

The Master of Science in Business with a concentration in decision analytics provides students with a breadth of analytical and quantitative skills with experience in analyzing and communicating solutions to problems arising in an organization.

Leading organizations gain competitive advantage through the use of analysis of relevant data to guide and drive strategic and tactical decisions. Increased volumes of data and emphasis on data-driven decision-making create new challenges for decision-makers and provide new employment opportunities for people with deep analytical skills. There is a significant and growing demand for individuals with the ability to work collaboratively within an organization to mine relevant raw data and refine data into a recommended action of value to the enterprise. The

decision analytics concentration equips students with the essential skills to be analytically functional in an organization.

Skills, abilities and knowledge necessary for success in analytics:

- 1. Work in a collaborative environment
- Translate specific business questions into problems that can be insighted through data analysis
- 3. Acquire and organize appropriate data so it can be used for analysis
- 4. Know general principles and common tools and be able to apply them to analyze specific business problems
- Develop and effectively communicate an actionable solution for specific business questions

The decision analytics concentration focuses on the applications of digital and information technology, decision sciences and statistics to decision-making and problem-solving in organizations. The program will give students the theory, knowledge and skills to:

- Formulate frequently nonquantitative and ill-formed business issues so they
 can be insighted through data analytics
- 2. Retrieve, cleanse and organize data from mega databases (big data)
- 3. Perform appropriate statistical analysis and interpret the results
- 4. Explain analytical results to nonquantitative management

The professional track is a presented in a concentrated weekend schedule, making the program attractive to midcareer professionals who want to gain or increase their analytics skills without interrupting their careers.

In addition to the VCU Graduate School graduation requirements and credit hour requirements, students must complete up to four classes (zero to 12 credit hours) of foundation course work. At the time of application, all undergraduate and graduate transcripts will be reviewed to determine if the following courses may be waived. Waivers of foundation courses only occur when a student has completed the required undergraduate equivalent courses with a minimum grade of C.

Curriculum requirements

Courses	Credit hours
DAPT 611 Analysis and Design of Database Systems	3
DAPT 612 Text Mining and Unstructured Data	2
DAPT 613 Tools for Business Intelligence	2
DAPT 621 Statistics for the World of Big Data	3
DAPT 622 Statistics for the World of Big Data II	2
DAPT 631 Data Mining	2
DAPT 632 Forecasting Methods and Applications for Managerial Decision-making	2
DAPT 633 Introduction to Marketing and Customer Analytics	2
DAPT 641 Introduction to Simulation Methods	1
DAPT 642 Introduction to Risk Analysis	1
DAPT 643 Introduction to Optimization Models	1
DAPT 651 Personal, Interpersonal and Organizational Awareness	1
DAPT 652 Professional Presentations: Strategy, Delivery and Technology	1
DAPT 653 Written Communications: Strategy, Structure and Connection	1
DAPT 654 Written Communications: Strategy, Structure and Connection II	1
DAPT 661 Issues in Analytics (1 credit course repeated)	3
DAPT 670 Analytics Problem Formation	2
DAPT 681 Analytics Practicum I	1
DAPT 682 Analytics Practicum II	2

There are no electives, substitutions or exemptions.

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business, Master of Science (M.S.) with a concentration in finance

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis

Senior director, master's programs

androvichcm@vcu.edu

(804) 828-4622

Additional contact

Jana P. McQuaid

Associate dean, master's programs

jpmcquaid@vcu.edu

(804) 828-4622

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Program website: business.vcu.edu/graduate/msfi.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business, Master of Science (M.S.) with a concentration in branding

Business, Master of Science (M.S.) with a concentration in decision analytics

Business, Master of Science (M.S.) with a concentration in global marketing management

Business, Master of Science (M.S.) with a concentration in real estate valuation

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business, Master of Science (M.S.) with a concentration in finance			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.S.	entry:		GMAT or GRE
	Fall	July 1	
	Spring	Nov 1	
	Summer	Mar 1	

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

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 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The goal of the Master of Science in Business with a concentration in finance program is to train students to take on the quantitatively challenging and highly competitive business environment of the financial industry. Students learn skills to effectively analyze, develop and communicate solutions that take into consideration ethical implications.

Student learning outcomes

- Graduates will be able to conceptualize and apply quantitative measurement methods, to analyze business problems and to propose solutions.
- 2. Graduates will be able to analyze a business problem in terms of both quantitative and qualitative aspects, including: (a) a precise statement of the problem and how it relates to the goals of the firm, (b) a consideration of the ethical, policy and/or practicality limitations on any proposed solution strategy, (c) a statement and consideration of proposed solutions strategies and their implementation within the limitations, and (d) a plan for implementation and monitoring of the proposed solution.
- Graduates will be able to analyze the ethical dimensions of a business situation and relate those dimensions to general ethical standards as well as to professional ethical standards.
- Graduates will be able to express the analytic, quantitative and ethical dimensions of business problems and proposed solutions in a clear and wellorganized manner.

Degree requirements

The finance concentration prepares students for financial decision-making positions in corporate, investment, financial and governmental institutions. Courses offered in finance include advanced financial management, investments and security analysis, funds management in financial institutions, international finance, and derivatives.

In addition to the VCU Graduate School graduation requirements:

- All students must have completed a course in calculus prior to attempting graduate business courses. This prerequisite can be met after admission to the program.
- 2. Students must complete up to four classes (0 to 12 credit hours) of foundation course work. At the time of application, all undergraduate and graduate transcripts will be reviewed to determine if the following courses may be waived. Waiver of a foundation course may be awarded when a student demonstrates equivalent knowledge, such as completing the required undergraduate equivalent course with a minimum grade of C.

Curriculum requirements

Courses	Credit hours
Prerequisite	3
Calculus (SCMA 212 Differential Calculus and Optimization for Business or SCMA 500 Quantitative Foundation for Decision- making)	3
Foundation courses	0-12
ACCT 507 Fundamentals of Accounting	3
ECON 500 Concepts in Economics	3
FIRE 520 Financial Concepts of Management	3
SCMA 524 Statistical Fundamentals for Business Management	3
Required core courses	15
FIRE 622 Financial Management of Financial Institutions	3
FIRE 623 Financial Management	3
FIRE 635 Investments and Security Analysis	3
FIRE 639 International Finance	3
FIRE 650 Derivatives	3
Finance, insurance and real estate electives	12
Choose four courses from the following list:	
FIRE 621 Cases in Financial Management	3
FIRE 625 Group Insurance and Pension Planning	3
FIRE 626 Risk Management	3
FIRE 629 Real Estate Investment Analysis	3
FIRE 654 Short-term Financial Management	3
FIRE 657 Current Issues in Investments and Markets	3
FIRE 658 Real Estate Finance and Investments	3
FIRE 664 Current Issues in Corporate Finance	3
FIRE 691 Topics in Finance, Insurance and Real Estate	3
FIRE 693 Field Project in Finance, Insurance and Real Estate* or FIRE 697 Guided Study in Finance, Insurance and Real Estate	3
* FIRE 693 is recommended for full-time students. The department will work closely with full-time students and prospective employers in order to achieve this goal. Students may	

* FIRE 693 is recommended for full-time students. The department will work closely with full-time students and prospective employers in order to achieve this goal. Students may not use both FIRE 693 and FIRE 697 toward degree requirements.

A student may substitute a free elective for one of the FIRE electives with the approval of the director of the concentration in finance.

Free electives

3

Students may choose any free elective approved by the director of the M.S. program in finance. Students are encouraged to select accounting, economics, math, or statistics courses. The following courses are pre-approved electives and therefore do not require further approval.

ACCT 600:699	3
ECON 600:699	3
FIRE 600:699	3

INFO 610 Analysis and Design of Database Systems	3
INFO 611 Data Re-engineering	3
INFO 614 Data Mining	3
INFO 632 Business Process Engineering	3
MGMT 644 International Business Management	3
MGMT 655 Entrepreneurship	3
MKTG 656 International Marketing	3
MKTG 673 Marketing Research	3
SCMA 632 Statistical Analysis and Modeling	3
SCMA 643 Applied Multivariate Methods	3
SCMA 669 Developing and Implementing Forecasting Methods for Business	3

Total graduate credit hours required (minimum)

45 (30 if prerequisite and all foundation courses are waived)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business, Master of Science (M.S.) with a concentration in finance with Christ University in Bangalore, India

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid

Associate dean, master's programs

jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/msfi.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business, Master of Science (M.S.) with a concentration in branding Business, Master of Science (M.S.) with a concentration in decision analytics Business, Master of Science (M.S.) with a concentration in global marketing management

Business, Master of Science (M.S.) with a concentration in real estate valuation

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business, Master of Science (M.S.) with a concentration in finance with Christ University in Bangalore, India			
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GMAT or GRE
	Fall	Jul 1	
	Spring	Nov 1	
	Summer	Mar 1	

The VCU School of Business and Christ University in Bangalore, India, have partnered to provide students with an opportunity to study at two universities and earn two degrees. Students who have already been admitted to the Christ University Master of Business Administration program are invited to apply to the VCU Master of Science in Business with a concentration in finance. Students satisfy the master's foundation course requirements during the first year while in the Christ University M.B.A. program and then complete the 10 required VCU courses needed for the M.S. in Business with a concentration in finance. These courses are taken primarily at the VCU Monroe Park Campus and are designed to be completed in one calendar year.

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The goal of the Master of Science in Business with a concentration in finance program is to train students to take on the quantitatively challenging and highly competitive business environment of the financial industry. Students learn skills to effectively analyze, develop and communicate solutions that take into consideration ethical implications.

Student learning outcomes

- Graduates will be able to conceptualize and apply quantitative measurement methods, to analyze business problems and to propose solutions.
- 2. Graduates will be able to analyze a business problem in terms of both quantitative and qualitative aspects, including: (a) a precise statement of the problem and how it relates to the goals of the firm, (b) a consideration of the ethical, policy and/or practicality limitations on any proposed solution strategy, (c) a statement and consideration of proposed solutions strategies and their implementation within the limitations, and (d) a plan for implementation and monitoring of the proposed solution.
- Graduates will be able to analyze the ethical dimensions of a business situation and relate those dimensions to general ethical standards as well as to professional ethical standards.
- Graduates will be able to express the analytic, quantitative and ethical dimensions of business problems and proposed solutions in a clear and wellorganized manner.

Degree requirements

The finance concentration prepares students for financial decision-making positions in corporate, investment, financial and governmental institutions. Courses offered in finance include advanced financial management, investments and security analysis, funds management in financial institutions, international finance, and derivatives.

In addition to the VCU Graduate School graduation requirements:

- All students must have completed a course in calculus prior to attempting graduate business courses. This prerequisite can be met after admission to the program.
- 2. Students must complete up to four classes (0 to 12 credit hours) of foundation course work. At the time of application, all undergraduate and graduate transcripts will be reviewed to determine if the following courses may be waived. Waiver of a foundation course may be awarded when a student demonstrates equivalent knowledge, such as completing the required undergraduate equivalent course with a minimum grade of C.

Courses

Curriculum requirements

	hours
Prerequisite and foundation course work are taken as part of the M.B.A. program at Christ University	
Required core courses	15
FIRE 622 Financial Management of Financial Institutions	3
FIRE 623 Financial Management	3
FIRE 635 Investments and Security Analysis	3
FIRE 639 International Finance	3
FIRE 650 Derivatives	3
Finance, insurance and real estate electives	12
Choose four courses from the following list:	12
FIRE 621 Cases in Financial Management	3
FIRE 625 Group Insurance and Pension Planning	3
FIRE 626 Risk Management	3
FIRE 629 Real Estate Investment Analysis	3
FIRE 654 Short-term Financial Management	3
FIRE 657 Current Issues in Investments and Markets	3
FIRE 658 Real Estate Finance and Investments	3
FIRE 664 Current Issues in Corporate Finance	3
FIRE 691 Topics in Finance, Insurance and Real Estate	3
FIRE 693 Field Project in Finance, Insurance and Real Estate or FIRE 697 Guided Study in Finance, Insurance and Real Estate*	3

* FIRE 693 is recommended for full-time students. The department will work closely with full-time students and prospective employers in order to achieve this goal. Students may not use both FIRE 693 and FIRE 697 toward degree requirements.

A student may substitute a free elective for one of the FIRE electives with the approval of the director of the concentration in finance.

Free electives

3

Students may choose any free elective approved by the director of the M.S. program in finance. Students are encouraged to select accounting, economics, math, or statistics courses. The following courses are preapproved electives and therefore do not require further approval.

Transfer of the transfer of th	
ACCT 600:699	3
ECON 600:699	3
FIRE 600:699	3
INFO 610 Analysis and Design of Database Systems	3
INFO 611 Data Re-engineering	3
INFO 614 Data Mining	3
INFO 632 Business Process Engineering	3
MGMT 644 International Business Management	3
MGMT 655 Entrepreneurship	3
MKTG 656 International Marketing	3
MKTG 673 Marketing Research	3
SCMA 632 Statistical Analysis and Modeling	3
SCMA 643 Applied Multivariate Methods	3
SCMA 669 Developing and Implementing Forecasting Methods for Business	3

Total graduate credit hours required (minimum) 30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

Credit

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business, Master of Science (M.S.) with a concentration in global marketing management

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/msgmm.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business, Master of Science (M.S.) with a concentration in branding Business, Master of Science (M.S.) with a concentration in decision analytics Business, Master of Science (M.S.) with a concentration in finance Business, Master of Science (M.S.) with a concentration in global marketing management with Fudan University [joint degree]

Business, Master of Science (M.S.) with a concentration in real estate valuation

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business, Master of Science (M.S.) with a concentration in global marketing management			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.S.	entry:		GMAT or GRE
	Fall	Jul 1	
	Spring	Nov 1	
	Summer	Mar 1	

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Science in Business with a concentration in global marketing management offers students the opportunity to combine their studies in international marketing with contemporary issues in marketing management.

Student learning outcomes

- 1. Students will evaluate marketing programs.
- Students will express the analytic, quantitative and ethical dimensions of business problems and proposed solutions in a clear and well-organized manner.

Degree requirements

The concentration in global marketing management offers students the opportunity to concentrate their studies in two related areas: marketing management and global business management. Students select foundation, core and/or elective courses in accounting, economics, finance or management to complement marketing courses in the program. Students interested in preparing for the increasingly global nature of business will be well-suited for this unique master's degree program. All degree candidates are strongly encouraged to participate in an intensive study program in a foreign language and/or a foreign study program.

In addition to the VCU Graduate School graduation requirements, students must complete up to seven classes (0 to 21 credit hours) of foundation course work. At the time of application, all undergraduate and graduate transcripts will be reviewed to determine if the following courses may be waived. Waiver of a foundation course may be awarded when a student demonstrates equivalent knowledge, such as completing the required undergraduate equivalent course with a minimum grade of C

Courses

Curriculum requirements

Foundation courses		0-21
ACCT 507 Fundamentals of Accounting	3	
ECON 500 Concepts in Economics	3	
FIRE 520 Financial Concepts of Management	3	
MKTG 570 Concepts and Issues in Marketing	3	
SCMA 524 Statistical Fundamentals for Business Management	3	
Two-course sequence in a foreign language at the undergraduate or graduate level (or demonstrated proficiency) or two approved cross-cultural courses taken at the undergraduate or graduate level	6	
Required marketing and strategy courses		15
MGMT 642 Business Policy and Strategy (to be taken in the last semester)	3	
MKTG 656 International Marketing	3	
MKTG 657 International Marketing Planning Project	3	
MKTG 671 Marketing Management	3	
MKTG 673 Marketing Research	3	
Marketing electives		9
Choose three courses from the following list:		
MKTG 672 Concepts in Consumer Behavior	3	
MKTG 674 Service Quality Management	3	
MKTG 691 Topics in Marketing	3	
MKTG 693 Field Project in Marketing	3	
MKTG 697 Guided Study in Marketing	3	
Non-marketing electives		6
Choose two courses from the following list. Other electives may		
be used subject to adviser approval.		
ACCT 606 International Accounting	3	
FIRE 621 Cases in Financial Management	3	
FIRE 639 International Finance	3	
MGMT 644 International Business Management	3	
MGMT 655 Entrepreneurship	3	

Credit hours

SCMA 632 Statistical Analysis and Modeling SCMA 643 Applied Multivariate Methods SCMA 669 Developing and Implementing Forecasting Methods for Business

Total graduate credit hours required (minimum)

51 (30 if all foundation courses are waived)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business, Master of Science (M.S.) with a concentration in global marketing management with Christ University in Bangalore, India

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/msgmm.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business, Master of Science (M.S.) with a concentration in branding Business, Master of Science (M.S.) with a concentration in decision analytics Business, Master of Science (M.S.) with a concentration in finance Business, Master of Science (M.S.) with concentration in global marketing management in conjunction with Fudan University [joint degree] Business, Master of Science (M.S.) with a concentration in real estate valuation

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business, Master of Science (M.S.) with a concentration in global marketing management with Christ University in Bangalore, India Degree: Semester(s) of Deadline dates: Test requirements: M.S. entry: GMAT or GRE Fall Jul 1 Spring Nov 1 Summer Mar 1

The VCU School of Business and Christ University in Bangalore, India have partnered to provide students with an opportunity to study at two universities and earn two degrees. Students who have already been admitted to the Christ University Master of Business Administration program are invited to apply to the VCU Master of Science in Business with a concentration in global marketing management. Students satisfy the master's foundation course requirements during the first year while in the Christ University M.B.A. program and then complete the 10 required VCU courses needed for the Master of Science in Business with a concentration in global marketing management degree. These courses are taken primarily at the VCU Monroe Park Campus and are designed to be completed in one calendar year.

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Science in Business with a concentration in global marketing management offers students the opportunity to combine their studies in international marketing with contemporary issues in marketing management.

Student learning outcomes

- 1. Students will evaluate marketing programs.
- Students will express the analytic, quantitative and ethical dimensions of business problems and proposed solutions in a clear and well-organized manner

Degree requirements

The concentration in global marketing management offers students the opportunity to concentrate their studies in two related areas: marketing management and global

business management. Students select foundation, core and/or elective courses in accounting, economics, finance or management to complement marketing courses in the program. Students interested in preparing for the increasingly global nature of business will be well-suited for this unique master's degree program. All degree candidates are strongly encouraged to participate in an intensive study program in a foreign language and/or a foreign study program.

In addition to the VCU Graduate School graduation requirements, students must complete up to seven classes (0 to 21 credit hours) of foundation course work. At the time of application, all undergraduate and graduate transcripts will be reviewed to determine if the following courses may be waived. Waiver of a foundation course may be awarded when a student demonstrates equivalent knowledge, such as completing the required undergraduate equivalent course with a minimum grade of C.

Curriculum requirements

Courses Credit hours

Prerequisite and foundation courses are taken as part of the M.B.A. program at Christ University.

Required marketing and strategy courses		15
MGMT 642 Business Policy and Strategy (to be taken in the last semester)	3	
MKTG 656 International Marketing	3	
MKTG 657 International Marketing Planning Project	3	
MKTG 671 Marketing Management	3	
MKTG 673 Marketing Research	3	
Marketing electives		9
Choose three courses from the following list:		
MKTG 672 Concepts in Consumer Behavior	3	
MKTG 674 Service Quality Management	3	
MKTG 691 Topics in Marketing	3	
MKTG 693 Field Project in Marketing	3	
MKTG 697 Guided Study in Marketing	3	
Non-marketing electives		6
Choose two courses from the following list. Other electives may be used subject to adviser approval.		
ACCT 606 International Accounting	3	
FIRE 621 Cases in Financial Management	3	
FIRE 639 International Finance	3	
MGMT 644 International Business Management	3	
MGMT 655 Entrepreneurship	3	
SCMA 632 Statistical Analysis and Modeling	3	
SCMA 643 Applied Multivariate Methods	3	
SCMA 669 Developing and Implementing Forecasting Methods for Business	3	

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business, Master of Science (M.S.) with a concentration in global marketing management with Fudan University [joint degree]

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis

Senior director, master's programs

and rovich cm@vcu.edu

(804) 828-4622

Additional contact

Jana P. McQuaid

Associate dean, master's programs

jpmcquaid@vcu.edu

(804) 828-4622

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Program website: business.vcu.edu/graduate/msgmm.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business, Master of Science (M.S.) with a concentration in branding

Business, Master of Science (M.S.) with a concentration in decision analytics

Business, Master of Science (M.S.) with a concentration in finance

Business, Master of Science (M.S.) with a concentration in global marketing management

Business, Master of Science (M.S.) with a concentration in real estate valuation

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business, Master of Science (M.S.) with a concentration in global marketing management with Fudan University [joint degree]			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.S.	entry:		GMAT or GRE
	Fall	Jul 1	
	Spring	Nov 1	
	Summer	Mar 1	

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The Master of Science in Business with a concentration in global marketing management offers students the opportunity to combine their studies in international marketing with contemporary issues in marketing management.

Student learning outcomes

- 1. Students will evaluate marketing programs.
- Students will express the analytic, quantitative and ethical dimensions of business problems and proposed solutions in a clear and well-organized manner.

Degree requirements

Students enrolled in the VCU-Fudan University joint degree program take all required courses at Fudan University in Shanghai and an encouraged practicum course at VCU at the end of the program. The program will be jointly taught by faculty from both VCU and Fudan. The program requires a minimum of 30 credit hours and provides the option to complete a practicum for a total of 33 credits maximum. Upon completion of the requirements, students will receive a Master of Science in Business with a concentration in global marketing management from VCU.

In addition to the VCU Graduate School graduation requirements, students must complete up to seven classes (0 to 21 credit hours) of the following preparatory foundation course work taken at Fudan University.

Preparatory foundation courses taken at Fudan University	0-21
Concepts and Issues in Marketing	3
Statistical Elements of Quantitative Management	3
Fundamentals of Accounting	3
Financial Concepts of Management	3
Concepts of Economics	3
Two-course sequence in a foreign language at the undergraduate or graduate	6

Iwo-course sequence in a foreign language at the undergraduate or graduate 6 level (or demonstrated proficiency) or two approved cross-cultural courses taken at the undergraduate or graduate level

Curriculum requirements

Courses	Credit hours
Required marketing and strategy courses	15
MGMT 642 Business Policy and Strategy (to be taken in the	3
last semester)	
MKTG 656 International Marketing	3

MKTG 657 International Marketing Planning Project	3	
MKTG 671 Marketing Management	3	
MKTG 673 Marketing Research	3	
Marketing electives	9	
Choose three courses from the following list:		
NEWTO (TAIC	2	
MKTG 672 Concepts in Consumer Behavior	3	
MKTG 674 Service Quality Management	3	
MKTG 691 Topics in Marketing	3	
MKTG 693 Field Project in Marketing	3	
MKTG 697 Guided Study in Marketing	3	
Non-marketing electives	6	
Choose two courses from the following list. Other electives may		
be used subject to adviser approval.		
•		
ACCT 606 International Accounting	3	
ACCT 606 International Accounting FIRE 621 Cases in Financial Management	3 3	
ACCT 606 International Accounting FIRE 621 Cases in Financial Management FIRE 639 International Finance	3 3 3	
ACCT 606 International Accounting FIRE 621 Cases in Financial Management FIRE 639 International Finance MGMT 644 International Business Management	3 3 3 3	
ACCT 606 International Accounting FIRE 621 Cases in Financial Management FIRE 639 International Finance MGMT 644 International Business Management MGMT 655 Entrepreneurship	3 3 3 3 3	
ACCT 606 International Accounting FIRE 621 Cases in Financial Management FIRE 639 International Finance MGMT 644 International Business Management MGMT 655 Entrepreneurship SCMA 632 Statistical Analysis and Modeling	3 3 3 3 3 3	
ACCT 606 International Accounting FIRE 621 Cases in Financial Management FIRE 639 International Finance MGMT 644 International Business Management MGMT 655 Entrepreneurship SCMA 632 Statistical Analysis and Modeling SCMA 643 Applied Multivariate Methods	3 3 3 3 3 3 3 3	
ACCT 606 International Accounting FIRE 621 Cases in Financial Management FIRE 639 International Finance MGMT 644 International Business Management MGMT 655 Entrepreneurship SCMA 632 Statistical Analysis and Modeling SCMA 643 Applied Multivariate Methods SCMA 669 Developing and Implementing Forecasting Methods	3 3 3 3 3 3 3 3	
ACCT 606 International Accounting FIRE 621 Cases in Financial Management FIRE 639 International Finance MGMT 644 International Business Management MGMT 655 Entrepreneurship SCMA 632 Statistical Analysis and Modeling SCMA 643 Applied Multivariate Methods SCMA 669 Developing and Implementing Forecasting Methods for Business	3 3 3 3 3 3 3 3	
ACCT 606 International Accounting FIRE 621 Cases in Financial Management FIRE 639 International Finance MGMT 644 International Business Management MGMT 655 Entrepreneurship SCMA 632 Statistical Analysis and Modeling SCMA 643 Applied Multivariate Methods SCMA 669 Developing and Implementing Forecasting Methods	3 3 3 3 3 3 3	
ACCT 606 International Accounting FIRE 621 Cases in Financial Management FIRE 639 International Finance MGMT 644 International Business Management MGMT 655 Entrepreneurship SCMA 632 Statistical Analysis and Modeling SCMA 643 Applied Multivariate Methods SCMA 669 Developing and Implementing Forecasting Methods for Business Or other approved graduate-level courses outside the School of	3 3 3 3 3 3 3	

Practicum 3 (optional)

Students are strongly encouraged to complete an additional three credit hours in a practicum course taught at VCU at the end of the program.

Total graduate credit hours required (minimum)

30 (33 if optional practicum is taken)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Business, Master of Science (M.S.) with a concentration in human resource management

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business, Master of Science (M.S.) with a concentration in branding Business, Master of Science (M.S.) with a concentration in decision analytics Business, Master of Science (M.S.) with a concentration in finance Business, Master of Science (M.S.) with a concentration in global marketing management

Business, Master of Science (M.S.) with a concentration in real estate valuation

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Admission to this program has been suspended.

Business, Master of Science (M.S.) with a concentration in human resource management			
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GMAT

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business must submit an up-to-date resume.

Business, Master of Science (M.S.) with a concentration in real estate valuation

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/msre.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business, Master of Science (M.S.) with a concentration in branding Business, Master of Science (M.S.) with a concentration in decision analytics

Business, Master of Science (M.S.) with a concentration in finance Business, Master of Science (M.S.) with a concentration in global marketing management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business, Master of Science (M.S.) with a concentration in real estate valuation			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.S.	entry:		GMAT or GRE
	Fall	Jul 1	
	Spring	Nov 1	
	Summer	Mar 1	

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

- To prepare students for successful careers in real estate valuation and lifelong learning by providing education that is firmly grounded in technology, interdisciplinary teamwork and a global perspective
- To ensure that students understand and can apply appropriate analytical methodologies and technology to the discipline of real estate valuation
- To prepare students for professional licensing, certification and/or professional designations

Student learning outcomes

- Graduates will demonstrate the ability to communicate the qualitative and quantitative dimensions of real estate valuation in a clear and well-organized manner.
- 2. Graduates will be able to select, conceptualize and apply the appropriate quantitative measurement and analysis to correctly value real estate. Such methods might include an economic and financial analysis of commercial real estate investments, alternative financing structures and/or surveys of recent trends in the securitization of commercial real estate debt and equity methods.
- 3. Graduates will be able to analyze a real estate valuation problem in terms of:
 1) development of a precise statement of the problem and how it relates to the goals of the firm and/or client and in conformance to the Uniform Standards of Professional Appraisal Practice; 2) a consideration of the ethical, policy and/or practical limitations on any proposed solution strategy; 3) statement and consideration of proposed solutions strategies and their implementation, including the application and development of the appropriate approaches to value (cost analysis, sales comparison analysis and income capitalization analysis including direct capitalization and yield capitalization) along with

- a proper reconciliation of these approaches; and 4) formulation of a plan for implementation and monitoring of the proposed solution.
- Graduates will be able to analyze the ethical dimensions of a real estate situation and relate those dimensions to professional ethical standards. Specifically, graduates will have an understanding of the Uniform Standards of Professional Appraisal Practice.

Degree requirements

The real estate valuation concentration is one of only eight programs in the nation that satisfies the rigorous educational requirements of the Appraisal Institute's MAI designation. Students can satisfy most of the Appraisal Institute's education requirements by completing the concentration. This concentration emphasizes real estate valuation while providing comprehensive education in related disciplines so that graduates' analytical skills and abilities to communicate with other professionals are greatly enhanced. Whenever possible, students will be placed in internships with MAIs.

In addition to the VCU Graduate School graduation requirements, students must complete the following undergraduate prerequisite courses:

Curriculum requirements

Prerequisite undergraduate courses

FIRE 425 Real Estate Appraisal	3
FIRE 445 Real Estate Investment Analysis	3

Students must also complete up to seven classes (0 to 21 credit hours) of foundation course work. At the time of application, all undergraduate and graduate transcripts will be reviewed to determine if the following courses may be waived. Waiver of a foundation course may be awarded when a student demonstrates equivalent knowledge, such as completing the required undergraduate equivalent course with a minimum grade of C.

Curriculum requirements

Courses		Credit hours
Prerequisite graduate course		3
SCMA 500 Quantitative Foundation for Decision-making	3	
Foundation courses		0-18
ACCT 507 Fundamentals of Accounting	3	
ECON 500 Concepts in Economics	3	
FIRE 520 Financial Concepts of Management	3	
MKTG 570 Concepts and Issues in Marketing	3	
SCMA 524 Statistical Fundamentals for Business Management	3	
SCMA 530 Fundamentals of the Legal Environment of Business	3	
Required courses		30
ECON 617 Financial Markets	3	
FIRE 621 Cases in Financial Management	3	
FIRE 627 Real Estate Development	3	
FIRE 628 Using GIS in Real Estate	3	
Decisions		
FIRE 629 Real Estate Investment Analysis	3	
FIRE 638 Real Property Investment Law	3	
FIRE 658 Real Estate Finance and Investments	3	

FIRE 697 Guided Study in Finance,	3
Insurance and Real Estate	
MKTG 673 Marketing Research	3
SCMA 632 Statistical Analysis and	3
Modeling	

Total graduate credit hours required 51 (30 if all prerequisite and (minimum)

foundation courses are waived)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Real Estate and Urban Land Development, Certificate in (Post-baccalaureate graduate certificate)

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/re-cert.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Real Estate and Urban Land Development, Certificate in (Post-baccalaureate graduate certificate)			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
Certificate	entry:		
	Fall	Jul 1	
	Spring	Nov 1	
	Summer	Mar 1	

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The post-baccalaureate graduate Certificate in Real Estate and Urban Land Development is designed for professionals who seek an opportunity for advanced study in real estate and are more interested in the focused knowledge obtainable than receipt of a graduate degree. The certificate provides students the ability to advance their careers while receiving recognition for their academic accomplishment in the form of a graduate certificate. Many working professionals, especially those with undergraduate majors in the liberal arts, will find this program attractive since they can concentrate their energies on a tightly focused curriculum without enrolling in a large number of prerequisite courses.

Student learning outcomes

- Graduates will demonstrate the ability to communicate the qualitative and quantitative dimensions of real estate valuation in a clear and well-organized manner.
- Graduates will be able to select, conceptualize and apply the appropriate quantitative measurement and analysis to correctly value real estate. Such methods might include an economic and financial analysis of commercial real estate investments, alternative financing structures and/or surveys of recent trends in the securitization of commercial real estate debt and equity markets.
- Graduates will be able to analyze the ethical dimensions of a real estate situation and relate those dimensions to professional ethical standards.
 Specifically, graduates will have an understanding of the Uniform Standards of Professional Appraisal Practice.

Degree requirements

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In addition to the VCU Graduate School graduation requirements, in order to be eligible to receive the certificate, a student must maintain an overall GPA of 3.0. Eighteen credit hours beyond the bachelor's degree are required for completion of this graduate certificate program. A maximum of one three-hour course taken at another AACSB-accredited institution may be transferred into this program. Students interested in later applying for admission into either the Master of Business Administration program with a concentration in real estate or the Master of Science in Business with a concentration in real estate valuation must do so

through a separate application process. Admission is dependent on the applicant having achieved a 3.0 GPA in the graduate certificate and a satisfactory score on the GMAT examination.

Curriculum requirements

Courses	Credit hours	
FIRE 627 Real Estate Development	3	
FIRE 628 Using GIS in Real Estate Decisions	3	
FIRE 629 Real Estate Investment Analysis	3	
FIRE 638 Real Property Investment Law	3	
FIRE 658 Real Estate Finance and Investments	3	
Plus one of the following courses:	3	
FIRE 621 Cases in Financial Management		
MGMT 655 Entrepreneurship		
MKTG 674 Service Quality Management		

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Supply Chain Management, Master of (M.S.C.M.)

Program accreditation

The Association to Advance Collegiate Schools of Business (AASCB) http://aacsb.edu/

Graduate program director

George Zsidisin, Ph.D., C.P.M. Professor, Department of Supply Chain Management and Analytics gazsidisin@vcu.edu (804) 828-1488

Additional contact:

Colleen A. Davis Senior Director, Master's Programs androvichcm@vcu.edu (804) 828-4622

Program website http://business.vcu.edu/graduate/mastersupplychain.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.)

Business Administration, Master of (M.B.A.) with a concentration in business analytics

Business Administration, Master of (M.B.A.) with a concentration in corporate finance

Business Administration, Master of (M.B.A.) with a concentration in entrepreneurship and innovation

Business Administration, Master of (M.B.A.) with a concentration in global business

Business Administration, Master of (M.B.A.) with a concentration in health care management

Business Administration, Master of (M.B.A.) with a concentration in human capital

Business Administration, Master of (M.B.A.) with a concentration in investments Business Administration, Master of (M.B.A.) with a concentration in real estate Business Administration, Master of (M.B.A.) with a concentration in supply chain management

Apply online @ graduate.admissions.vcu.edu

Admission requirements

Supply Chain Management, Master of (M.S.C.M.)			
Degree: M.S.C.M.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE or GMAT
	Fall	Jul 1	
	Spring	Nov 1	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- · Curriculum vitae and personal statement
- · Personal interview if requested by the graduate program director

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The Master of Supply Chain Management program will educate students on the theory, skills and practices necessary to manage the daily challenges in managing

global supply chains. Students will be introduced to supply management and logistics systems, international logistics, transportation management, enterprise resource planning and innovation processes. In addition, students will learn how to identify problems, gather information, analyze data, interpret solutions, establish contingencies and effectively present results.

Although developed in collaboration with the U.S. Army, the intent of the program is to provide an opportunity for both military officers and civilians to earn a master's degree in supply chain management.

Student learning outcomes

Students in the Master of Supply Chain Management program will be able to:

- 1. Demonstrate how to manage the complexities present in global supply chains
- 2. Demonstrate the ability to add value in global supply chains
- Demonstrate how to design, plan and control organizational processes using information technology
- 4. Demonstrate how to manage data and uncertainty in supply chains
- Apply cross-disciplinary skills to foster innovative solutions to supply chain challenges and opportunities
- 6. Develop research and communications skills

Degree requirements

In addition to the VCU Graduate School graduation requirements, students must complete a minimum of 30 credit hours. These credit hours consist of seven core courses (21 credit hours) and three elective courses (nine credit hours).

Curriculum requirements

Courses		redit ours
Core courses		21
SCMA 602 Global Supply Chain Management	3	
SCMA 603 SAP ERP and Supply Chain Management	3	
SCMA 606 Supply Chain Innovation	3	
SCMA 645 Management Science	3	
SCMA 648 Analytics for Organizational Decision-making	3	
SCMA 675 Operations Management	3	
SCMA 697 Guided Study in Supply Chain Management and Analytics (one-credit course repeated for three credits)	3	
Electives		9
Approved electives may include:		
ACCT 608 Managerial Accounting	3	
FIRE 623 Financial Management	3	
INFO 632 Business Process Engineering	3	
INFO 661 Information Systems for Managers	3	
INFO 664 Information Systems for Business Intelligence	3	
MKTG 671 Marketing Management	3	
OPER 649/STAT 649 Statistical Quality Control	3	
SCMA 632 Statistical Analysis and Modeling	3	
SCMA 669 Developing and Implementing Forecasting Methods for Business	3	
SCMA 677 Quality Management and Six Sigma	3	
Total graduate credit hours required (minimum)		30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's

academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Department of Accounting

The future development of the accounting profession depends upon the quality of the educational foundation on which it rests. The Department of Accounting is committed to the support of professional accounting through the delivery of educational experiences directed toward practice and through research that addresses the important policy issues of the day.

The mission of the department is to prepare students for careers in accounting, to interpret and expand accounting knowledge, and to render service to the profession and communities. The department does so by:

- Providing a learning environment in which students are encouraged to interact with others in identifying and solving accounting and business problems.
- Investigating, developing and sharing knowledge, which has the potential for significant influence on accounting, business and education.
- 3. Interacting with the accounting profession, the business community and the community at large.

Administration

Carolyn S. Norman

Senior Associate Dean and Chair business.vcu.edu/accounting.html

Accounting courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to accounting (ACCT) courses.

Accountancy, Master of (M.Acc.)

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis

Senior director, master's programs

and rovich cm@vcu.edu

(804) 828-4622

Additional contact

Jana P. McQuaid

Associate dean, master's programs

jpmcquaid@vcu.edu

(804) 828-4622

Program website: business.vcu.edu/graduate/macc.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular ontions.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Accountancy, Master of (M.Acc.)				
Degree: M.Acc.	Semester(s) of entry: Fall Spring Summer	Deadline dates: July 1 Nov 1 Mar 1	Test requirements: GMAT or GRE	

In addition to the general admission requirements of the VCU Graduate School, applicants to the Master of Accountancy degree program who do not hold an undergraduate degree in accounting or business may be required to take up to 24 credit hours of business prerequisite courses and 27 credit hours of accounting prerequisite courses. These prerequisite courses may be waived for students who have successfully completed an equivalent course.

Undergraduate prerequisites

Non-accounting business course prerequisites

Students must complete at least eight non-accounting business courses from the following list. (Equivalent 500-level courses may be substituted). These courses may be waived if a student has completed the equivalent course in an undergraduate program.

ECON 303 Managerial Economics	3
FIRE 311 Financial Management	3
INFO 360 Business Information Systems	3
MGMT 319 Organizational Behavior	3
MGMT 434 Strategic Management	3
MKTG 301 Marketing Principles	3
SCMA 301 Business Statistics	3
SCMA 320 Production/Operations Management	3
SCMA 325 Organizational Communication	3

Accounting prerequisites

Candidates must complete at least eight non-accounting business courses from the following list. (Equivalent 500-level courses may be substituted.) These courses may be waived if a student has completed the equivalent course in an undergraduate program.

ACCT 203-204 Introduction to Accounting I-II or ACCT 205 Introductory	3
Accounting Survey	
ACCT 303 Intermediate Accounting I	3
ACCT 304 Intermediate Accounting II	3
ACCT 305 Intermediate Accounting III	3
ACCT 306 Cost Accounting	3
ACCT 307 Accounting Systems	3
ACCT 405 Tax Accounting Principles	3
ACCT 406 Auditing	3

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It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The purpose of the Master of Accountancy program is to provide the skills and knowledge necessary to be future leaders in the professional business community and the public sector for students who wish to specialize in the areas of accounting/information systems, auditing, financial reporting and accounting/other fields of business.

Student learning outcomes

- Students are expected to demonstrate current knowledge of financial accounting standards, tax laws and regulations, and other professional guidance that affects the profession. In addition, students should be aware of proposed changes to tax laws and regulations, financial accounting standards, and other professional guidance.
- Students are expected to demonstrate the ability to effectively communicate accounting information in writing and in oral presentations.
- 3. Students are expected to demonstrate the ability to effectively analyze comprehensive cases, comprehensive problems and other projects that require in-depth accounting knowledge. The analysis should include a brief statement of the issue, facts bearing on the issue, appropriate professional guidance and a proposed solution to the issue.
- 4. Students are expected to demonstrate the ability to apply accounting knowledge in a variety of contexts and circumstances.
- Students must be able to demonstrate their ability to apply ethical principles in a variety of accounting contexts and circumstances.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students in the Master of Accountancy program must complete a minimum of 30 credit hours of graduate course work with at least 15 credit hours in graduate accounting course work.

Curriculum requirements

Courses	Credit hours	
Required courses	15	
ACCT 604 Advanced Auditing	3	
ACCT 606 International Accounting	3	
ACCT 610 Forensic Accounting	3	
ACCT 662 Advanced Topics in Accounting Information Systems	3	
ACCT 680 Tax Research and Planning	3	

Electives		15
Choose five courses from the following list:		
ACCT 512 A 1	2	
ACCT 513 Advanced Accounting	3	
ACCT 681 Tax Administration	3	
ACCT 682 Corporate Taxation	3	
ACCT 684 Partnership Taxation	3	
ACCT 685 Taxation of Property Transactions	3	
INFO 632 Business Process Engineering	3	
INFO 640 Information Systems Management or INFO 661	3	
Information Systems for Managers		
INFO 664 Information Systems for Business Intelligence	3	
MGMT 633 Issues in Labor Relations	3	
MGMT 641Organizational Leadership and Project Team Management	3	
MGMT 655 Entrepreneurship	3	
Other approved 600-level accounting or business course	3	
Total graduate credit hours required (minimum)		30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Department of Economics

The Department of Economics provides instruction for degree programs at the baccalaureate, master's and doctoral level. The faculty works to develop in students the ability to use economic reasoning to understand and analyze business and economic phenomena and policies — the skills needed for careers in a rapidly changing world. To enhance the educational process and to broaden the frontiers of knowledge, faculty members conduct basic and applied research and provide academic and professional service to the university and professional communities.

Administration

Edward L. Millner

Professor and Department Chair www.bus.vcu.edu/economics

Economics courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to economics (ECON) courses.

Economics, Master of Arts (M.A.)

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/maecon.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Economics, Master of Arts (M.A.) with a concentration in financial economics Economics, Master of Arts (M.A.) with a concentration in health economics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Economics, Master of Arts (M.A.)			
Degree: M.A.	Semester(s) of entry: Fall Spring Summer	Deadline dates: Jul 1 Nov 1 Mar 1	Test requirements: GMAT or GRE

In addition to the general admission requirements of the VCU Graduate School, applicants to the Master of Arts in Economics degree program must complete one course in each of the following subject areas as a prerequisite for the program: intermediate macroeconomic theory, intermediate microeconomic theory, introductory econometrics and calculus. The student's adviser will review the student's economics and mathematical background to determine the extent to which the student has satisfied prerequisites. Required prerequisites may be taken after admission.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Arts in Economics is designed to enhance the student's abilities to use economic modeling to conduct applied analytical and econometric research. Students in this program are expected to demonstrate competence over a rigorous and current core curriculum in microeconomic and macroeconomic theory and in econometrics.

Graduates of the program should be well-qualified to conduct applied economic analysis in either a government or corporate research setting. The program also is an excellent preparation for entry into a doctoral program in economics or finance.

Student learning outcomes

- Students will use optimization techniques to develop demand and cost conditions from specifications of underlying utility and technology.
 Specifically, given a simple functional form for utility, students will be able to solve for optimal individual demand and, given a production technology, students will be able to solve for the firm's cost curves.
- 2. Students will understand and know how to apply quantitative macroeconomic models
- Students will critically evaluate the validity of conclusions drawn from econometric models by others who have access to the primary data. In the AACSB classifications, this is a management-specific goal.

Degree requirements

In addition to the VCU Graduate School graduation requirements, the M.A. in Economics degree requires a minimum of 30 credit hours of 600-level course work. Under the thesis option, the 30 hours must include eight core courses and one economics elective and one business or economics elective. Under the non-thesis option, the 30 hours must include six core courses, two economics electives and two business or economics electives.

Curriculum requirements

Courses	_	redit ours
Thesis option		
Required courses		24
ECON 604 Advanced Microeconomic Theory	3	
ECON 607 Advanced Macroeconomic Theory	3	
ECON 612 Econometrics	3	
ECON 614 Mathematical Economics	3	
ECON 641 Econometric Time-series Analysis	3	
ECON 642 Panel and Nonlinear Methods in Econometrics	3	
ECON 798-799 Thesis in Economics	6	
Approved electives		6
Any two 600-level courses chosen from economics, business or other		
field and approved by the program adviser		
Total graduate credit hours required (minimum)		30
Non-thesis option		
Required courses		18
ECON 604 Advanced Microeconomic Theory	3	
ECON 607 Advanced Macroeconomic Theory	3	
ECON 612 Econometrics	3	
ECON 614 Mathematical Economics	3	
ECON 641 Econometric Time-series Analysis	3	

ECON 642 Panel and Nonlinear Methods in Econometrics

Any two 600-level ECON courses

Approved electives

3

6

Any two 600-level courses chosen from economics, business or other field and approved by the program adviser

Approved economics electives

Total graduate credit hours required (minimum) 30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Economics, Master of Arts (M.A.) with a concentration in financial economics

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/maecon.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Economics, Master of Arts (M.A.)
Economics, Master of Arts (M.A.) with a concentration in health economics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Economics, Master of Arts (M.A.) with a concentration in financial economics			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.A.	entry:		GMAT or GRE
	Fall	Jul 1	
	Spring	Nov 1	
	Summer	Mar 1	

In addition to the general admission requirements of the VCU Graduate School, applicants to the Master of Arts in Economics degree program with a concentration in financial economics must complete one course in each of the following subject areas as a prerequisite for the program: intermediate macroeconomic theory, intermediate microeconomic theory, introductory econometrics and calculus. The student's adviser will review the student's economics and mathematical background to determine the extent to which the student has satisfied prerequisites. Required prerequisites may be taken after admission

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Arts in Economics is designed to enhance the student's abilities to use economic modeling to conduct applied analytical and econometric research. Students in this program are expected to demonstrate competence over a rigorous and current core curriculum in microeconomic and macroeconomic theory and in concentration.

Graduates of the program should be well-qualified to conduct applied economic analysis in either a government or corporate research setting. The program also is an excellent preparation for entry into a doctoral program in economics or finance.

Student learning outcomes

- Students will use optimization techniques to develop demand and cost conditions from specifications of underlying utility and technology.
 Specifically, given a simple functional form for utility, students will be able to solve for optimal individual demand and, given a production technology, students will be able to solve for the firm's cost curves.
- Students will understand and know how to apply quantitative macroeconomic models.
- Students will critically evaluate the validity of conclusions drawn from econometric models by others who have access to the primary data. In the AACSB classifications, this is a management-specific goal.

Degree requirements

In addition to the VCU Graduate School graduation requirements, the M.A. in Economics degree with a concentration in financial economics requires a minimum of 33 credit hours of 600-level course work. Under the thesis option, the 33 hours must include nine core courses and two restricted electives. Under the non-thesis option, the 33 hours must include seven core courses, three restricted electives and one additional elective in economics, finance or another field, as approved by the student's adviser.

Curriculum requirements

Courses		Credit hour	
Thesis option			
Required courses		27	
ECON 604 Advanced Microeconomic Theory	3		
ECON 607 Advanced Macroeconomic Theory	3		
ECON 612 Econometrics	3		
ECON 614 Mathematical Economics	3		
ECON 617 Financial Markets	3		
ECON 641 Econometric Time-series Analysis	3		
ECON 642 Panel and Nonlinear Methods in Econometrics	3		
ECON 798-799 Thesis in Economics	6		
Restricted electives		6	
FIRE 635 Investments and Security Analysis	3		
FIRE 650 Derivatives	3		
Total graduate credit hours required (minimum) Non-thesis option		33	
Required courses		21	
ECON 604 Advanced Microeconomic Theory	3		
ECON 607 Advanced Macroeconomic Theory	3		
ECON 612 Econometrics	3		
ECON 614 Mathematical Economics	3		
ECON 617 Financial Markets	3		
ECON 641 Econometric Time-series Analysis	3		
ECON 642 Panel and Nonlinear Methods in Econometrics	3		
Restricted electives		9	
FIRE 623 Financial Management	3		
FIRE 635 Investments and Security Analysis	3		
FIRE 650 Derivatives	3		
Approved electives		3	
Total graduate credit hours required (minimum)		33	

Note: Electives are approved in consultation with the graduate adviser for the Master of Arts in Economics.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

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Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Economics, Master of Arts (M.A.) with a concentration in health economics

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis

Senior director, master's programs

androvichcm@vcu.edu

(804) 828-4622

Additional contact Jana P. McQuaid

Associate dean, master's programs

jpmcquaid@vcu.edu

(804) 828-4622

Program website: business.vcu.edu/graduate/maecon.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Economics, Master of Arts (M.A.)

Economics, Master of Arts (M.A.) with a concentration in financial economics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Economics, Master of Arts (M.A.) with a concentration in health economics			
Degree: M.A.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE or GMAT
	Fall	Jul 1	Orte or own in
	Spring	Nov 1	
	Summer	Apr 1	

In addition to the general admission requirements of the VCU Graduate School, applicants to the Master of Arts in Economics degree program with a concentration in health economics must complete one course in each of the following subject areas as a prerequisite for the program: intermediate macroeconomic theory, intermediate microeconomic theory, introductory econometrics and calculus. The student's adviser will review the student's economics and mathematical background to determine the extent to which the student has satisfied prerequisites. Required prerequisites may be taken after admission

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

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 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

Graduates of the Master of Arts in Economics program will have the knowledge and experience to qualify for a wide and rapidly expanding range of analyst positions in the private or public sectors. Graduates will be particularly well-suited for positions requiring modeling skills and substantial experience in the analysis and interpretation of firm-level, industry or macroeconomic data. A unique feature of the program is a three-course core sequence in applied econometrics. These courses emphasize the application of modeling techniques and data analysis though the introduction of cases and projects. Through these courses, students acquire a working knowledge of up-to-date powerful statistical software and broad experience in working with a variety of real data sets. The concentration in health economics will allow students with particular interest in the health sector and in health policy issues to specialize in health economics, a topic currently quite relevant.

Graduates of the M.A.in Economics with a concentration in health economics, in addition to holding highly competitive terminal credentials as analysts, will find the program to be an outstanding bridge to doctoral work in programs such as the Ph.D. in Healthcare Policy and Research offered in the School of Medicine at VCU.

Student learning outcomes

- Students will be able to convey ideas about macroeconomic analysis effectively in oral and written communications.
- Students will use optimization techniques to develop demand and cost conditions from specifications of underlying utility and technology.
 Specifically, given a simple functional form for utility, students will be able to solve for optimal individual demand and, given a production technology, students will be able to solve for the firm's cost curves.
- Students will understand and know how to apply quantitative macroeconomic models
- 4. Students will critically evaluate the validity of conclusions drawn from econometric models by others who have access to the primary data.

Degree requirements

In addition to the VCU Graduate School graduation requirements, the M.A. in Economics with a concentration in health economics requires 33 credit hours of 600-level courses. Under the thesis option, the 33 hours must include eight core courses and three restricted electives. Under the non-thesis option, the 33 hours must include six core courses and five restricted electives.

Curriculum requirements

Courses		Credit hours
Thesis option		
Required courses		24
ECON 604 Advanced Microeconomic Theory	3	
ECON 607 Advanced Macroeconomic Theory	3	
ECON 612 Econometrics	3	
ECON 614 Mathematical Economics	3	
ECON 641 Econometric Time-series Analysis	3	
ECON 642 Panel and Nonlinear Methods in Econometrics	3	
ECON 798-799 Thesis in Economics	6	
Restricted electives		9
Choose three courses from the following list.		
HADM 602 Health System Organization, Financing and Performance	3	
HADM/ECON 624 Health Economics	3	
HCPR 601 Introduction to Health Policy	3	
HCPR 703 Health Economics: Theory and Principles	3	
HCPR 733 Statistical Methods in Analysis of Healthcare Resear	rch 3	
Total graduate credit hours required (minimum)		33
Non-thesis option		
Required courses		18
ECON 604 Advanced Microeconomic Theory	3	
ECON 607 Advanced Macroeconomic Theory	3	
ECON 612 Econometrics	3	
ECON 614 Mathematical Economics	3	
ECON 641 Econometric Time-series Analysis	3	
ECON 642 Panel and Nonlinear Methods in Econometrics	3	
Restricted electives		15
Choose three of the following		
HADM 602 Health System Organization, Financing and Performance	3	
HADM/ECON 624 Health Economics	3	
HCPR 601 Introduction to Health Policy	3	
HCPR 703 Health Economics: Theory and Principles	3	
HCPR 733 Statistical Methods in Analysis of Healthcare Resear		
Total graduate credit hours required (minimum)		33

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Department of Finance, Insurance and Real Estate

The Department of Finance, Insurance and Real Estate delivers knowledge to students in all programs offered by the School of Business and contributes to the expansion of knowledge by engaging in scholarly activity. The department provides core courses as well as majors, minors and concentrations. In addition, the department develops and delivers courses in continuing professional education for practitioners seeking to upgrade their skills and/or attempting to achieve professional certification.

Areas of study

- Finance (refer to the B.S. in Business concentrations for more information)
- Real estate (refer to the B.S. in Real Estate and the post-baccalaureate certificate for more information)
- Financial technology (refer to the B.S. in Financial Technology for more information)

Administration

Nanda K. Rangan

Professor and Department Chair www.bus.vcu.edu/finance

Finance, insurance and real estate courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to finance, insurance and real estate (FIRE) courses.

Department of Information Systems

The Department of Information Systems provides an innovative, high quality curriculum that is recognized nationally and internationally and maintains the ability to rapidly respond to the dynamic, changing needs of the academic discipline, industry and community.

The department offers degree programs at both the undergraduate and graduate level, as well as continuing education programs that support alumni and the community. Additionally, courses in information systems are offered to meet the needs of students in other curricula offered by the university as well as those who are seeking to enhance their knowledge of information systems.

Our faculty offers expertise in information technology and has wide-ranging research and teaching interests. As part of the department, the Information Systems Research Institute provides opportunities for sponsored research, innovative teaching initiatives and faculty development.

Administration

Richard T. Redmond

Associate Professor and Department Chair www.isy.vcu.edu

Information systems courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

The Department of Information Systems offers courses in the following areas:

Use this link to see information systems (INFO) courses.

Use this link to see graduate-level information technology management (ISTM) courses

Computer and Information Systems Security, Master of Science (M.S.)

Graduate program director

Meng Yu, Ph.D.

Associate professor

myu@vcu.edu

(804) 827 3986

Additional contact

Gurpreet S. Dhillon, Ph.D.

Professor

gdhillon@vcu.edu

(804) 828-1737

Program websites: computer-science.egr.vcu.edu/graduate/computer-and-information-systems-security and business.vcu.edu/graduate/ciss.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Computer and Information Systems Security, Master of Science (M.S.)			
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE or GMAT
111.5.	Fall	Jul 1	one or own n
	Spring	Nov 1	International students require TOEFL

Applicants must meet all general admission requirements of the VCU Graduate School.

The Master of Science in Computer and Information Systems Security, jointly offered by the Department of Computer Science in the School of Engineering and the Department of Information Systems in the School of Business, is designed primarily for students interested in professional roles in business, industry or government. Program graduates will serve as leaders within the computer and information systems security community and as strategic partners within the enterprises in which they work. They will stay attuned to, and anticipate changes in, the computer and information systems security environment and ensure that security solutions create a sound, competitive, cost-effective advantage for the enterprise.

Graduates of the program will be prepared to take leading roles in planning, organizing, managing, designing and configuring security solutions in public and private organizations and will be familiar with state-of-the-art security technologies and best practices. The program takes a broad interdisciplinary approach to computer and information systems security that will help students develop the ability to see the larger organization and social, political, ethical and economic aspects of information security, as well as offering a unique graduate-level curriculum that is both technically and managerially oriented.

For additional information, please visit the program website.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission

The Master of Science in Computer and Information Systems Security provides for the scholarly and professional needs of several groups who have either accepted or are keen to take on the challenge of protecting information resources of firms and society at large.

Program goal

Graduates of this program are expected to take on leadership positions, including as chief security officer, in computer and information systems security in organizations. VCU's program takes a broad interdisciplinary approach to computer and information systems security that will help develop the student's ability to see the larger organizational, social, political, ethical and economic aspects of information security.

Student learning outcomes

Graduates of the program will be:

- 1. Prepared to take leading roles in planning, organizing, managing, designing and configuring security solutions in public and private organizations
- 2. Familiar with state-of-the-art security technologies and best practices

Degree requirements

In addition to general VCU Graduate School graduation requirements, the M.S. in Computer and Information Systems Security requires 30 graduate credit hours, including a core curricular component, an elective component and a practice component. The elective component consists of three courses chosen by the student and selected from CISS course offerings or, with the approval of the program co-directors, from courses offered by the departments of Computer Science, Information Systems, Criminal Justice and Forensic Science. The practice component, taken near the end of the student's course work, ensures an opportunity for the student to apply principles to practice.

Curriculum requirements

Prerequisites are determined by the faculty adviser at the time of admission.

Courses	Credit hours	
Core component	15	
CISS/CMSC 618 Database and Application Security	3	
CISS/CMSC 622 Network and Operating Systems Security	3	
CISS 624/CMSC 620 Applied Cryptography	3	

CISS 634 Ethical, Social and Legal Issues in Computer and Information	3
Systems Security	
CISS/INFO 644 Principles of Computer and Information Systems	3
Security	

Elective component

12

Choose 12 credit hours of CISS courses or, with the approval of program co-directors, courses offered by the departments of Computer Science, Information Systems, Criminal Justice or Forensic Science.

Practice component	3
CISS 693 Practice of Computer and Information Systems Security	3

Total graduate credit hours required (minimum) 30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Information Systems, Master of Science (M.S.)

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichem@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/msis.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Information Systems, Master of Science (M.S.) with a concentration in information risk, security and assurance

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Information Systems, Master of Science (M.S.)			
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GMAT or GRE
	Fall	Jul 1	
	Spring	Nov 1	
	Summer	Mar 1	

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Science in Information Systems program is designed to prepare students for specialized roles in information systems. The program is intended to provide a graduate-level, technically oriented curriculum that focuses on the design and development of information systems to solve real-world problems. The department's curriculum is focused on the rapidly emerging area known as enterprise information systems. Students may choose a curriculum with no concentration or a concentration in information risk, security and assurance. Graduates of the program are expected to be able to take significant roles in planning, organizing, managing, designing, configuring and implementing EIS systems using state-of-the-art technologies within organizations.

Student learning outcomes

- Graduates should be capable of communicating and networking effectively
 within their profession and within their organizations, serving the profession
 by applying this knowledge broadly and maintaining key technical expertise
 in order to sustain required levels of competitiveness.
- Graduates must have an understanding of information technology as it applies to business contexts and the skill to apply this technology effectively in specific circumstances.
- Graduates must be able to develop efficient and effective IS solutions using appropriate technologies that can deliver competitive advantages to organizations.
- Graduates must be able to develop and incorporate changes in the planning and management of IS resources based on an increased understanding of the dynamic changes in the organization, IS and global environments.

Degree requirements

Students applying to the Master of Science in Information Systems must show evidence of competence in selected prerequisite areas of information systems including: application programming, systems analysis and design, database, telecommunications and hardware/software. Evidence of this competence may include formal course work, comparable training within a work environment or significant, relevant and recent work experience in the field. Students enrolled as majors in the program who do not have a formal background or equivalent training must take the appropriate undergraduate courses to satisfy the prerequisites prior to taking master's program courses. The required undergraduate courses are: INFO 300, INFO 350, INFO 360, INFO 361, INFO 370, INFO 364 and a course in calculus.

In addition to the VCU Graduate School graduation requirements, students who do not have a business degree must complete a minimum of four 500-level foundation courses (12 credit hours). Foundation courses may be waived for students who present satisfactory equivalent preparation at either the undergraduate or graduate level. Students who are required to take foundation courses may do so after admission. The foundation courses required will vary depending upon the student's background, career interests and the chosen area of specialization. Students applying to the program should consult with the master's program adviser to determine the foundation courses required for a particular area.

Curriculum requirements

Courses	Credit hours
Core courses	12
INFO 610 Analysis and Design of Database Systems	3
INFO 620 Data Communications	3
INFO 630 Systems Development	3
INFO 640 Information Systems Management	3
Electives	18
Choose six courses from the following list:	
INFO 611 Data Re-engineering	3
INFO 614 Data Mining	3
INFO 616/CISS 616 Data Warehousing	3
INFO 622 Internet Security Management	3
INFO 632 Business Process Engineering	3
INFO 641 Strategic Information Systems Planning	3
INFO 642 Decision Support and Intelligent Systems	3
INFO 643 Information Technology Project Management	3
INFO 644/CISS 644 Principles of Computer and Information Systems Security	3
INFO 646 Security Policy Formulation and Implementation	3
INFO 654 Systems Interface Design	3
INFO 658 Electronic Commerce	3
INFO 691 Topics in Information Systems	3
INFO 693 Field Project in Information Systems	3
INFO 697 Guided Study in Information Systems	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Total graduate credit hours required (minimum)

30

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Information Systems, Master of Science (M.S.) in with a concentration in information technology management [Fast Track Executive]

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Maureen E. Carley Director, FTEMS program mecarley@vcu.edu (804) 828-7074

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/ftems.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Spring

Admission requirements

	ystems, Master of Science echnology management [I	,	entration in
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.S.	entry:		GMAT

Dec 15

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in information systems must submit an up-to-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty

of the university through their elected representatives to the University Graduate

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Science in Information Systems program is designed to prepare students for specialized roles in information systems. The program is intended to provide a graduate-level, technically oriented curriculum that focuses on the design and development of information systems to solve real-world problems. The department's curriculum is focused on the rapidly emerging area known as enterprise information systems. Graduates of the program are expected to be able to take significant roles in planning, organizing, managing, designing, configuring and implementing EIS systems using state-of-the-art technologies within organizations.

Student learning outcomes

- Graduates should be capable of communicating and networking effectively
 within their profession and within their organizations, serving the profession
 by applying this knowledge broadly and maintaining key technical expertise
 in order to sustain required levels of competitiveness.
- Graduates must have an understanding of information technology as it applies to business contexts and the skill to apply this technology effectively in specific circumstances.
- Graduates must be able to develop efficient and effective IS solutions using appropriate technologies that can deliver competitive advantages to organizations.
- 4. Graduates must be able to develop and incorporate changes in the planning and management of IS resources based on an increased understanding of the dynamic changes in the organization, IS and global environments.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students must complete a minimum of 30 graduate credit hours.

The Fast Track Executive Master of Science in Information Systems with a concentration in information technology management provides an opportunity for current information technology professionals and business managers to receive the necessary preparation to move into IT management roles. Participants gain a wide range of new skills and knowledge by combining course work with their day-to-day professional activities. The program is targeted to rising business executives, entrepreneurs and information systems professionals. The program differs from the regular M.S. in Information Systems program in that it is offered in a weekend format, with students meeting for classes on alternate weekends throughout the calendar year. The lockstep program consists of 10 required courses.

Curriculum requirements

Courses	Credit hours
ISTM 671 Organizational Culture and Team Building	3
ISTM 672 Information Systems Management	3
ISTM 673 Analysis and Decisions	3
ISTM 674 Emerging Technologies	3
ISTM 675 IS Planning and Project Management	3

ISTM 676 Information Systems Assurance and Security	3
Management	
ISTM 677 Structuring Information for Decision Making	3
ISTM 678 IS in the Digital Economy	3
ISTM 679 Enterprise Information Systems	3
ISTM 691 Topics in IT Management	3

Total graduate credit hours required (minimum)

30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Information Systems, Master of Science (M.S.) with a concentration in information risk, security and assurance

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs ipmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/msis.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Information Systems, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Information Sprisk, security a	ystems, Master of Science and assurance	e (M.S.) with a concen	tration in information
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GMAT or GRE
	Fall	Jul 1	
	Spring	Nov 1	
	Summer	Mar 1	

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an upto-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

> General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Science in Information Systems program is designed to prepare students for specialized roles in information systems. The program is intended to provide a graduate-level, technically oriented curriculum that focuses on the design and development of information systems to solve real-world problems. The department's curriculum is focused on the rapidly emerging area known as enterprise information systems. Students may choose a curriculum with no concentration or a concentration in information risk, security and assurance. Graduates of the program are expected to be able to take significant roles in planning, organizing, managing, designing, configuring and implementing EIS systems using state-of-the-art technologies within organizations.

The information risk, security and assurance concentration within the degree is designed primarily for students interested in professional roles in business, industry or government. Program graduates will serve as leaders within the risk, security and assurance community and as strategic partners with the enterprise in which they work. They will stay attuned to and anticipate changes in the risk, security and assurance environment and ensure that security solutions create a sound, competitive and cost-effective advantage for the enterprise.

Student learning outcomes

- 1. Graduates should be capable of communicating and networking effectively within their profession and within their organizations, serving the profession by applying this knowledge broadly and maintaining key technical expertise in order to sustain required levels of competitiveness.
- Graduates must have an understanding of information technology as it applies to business contexts and the skill to apply this technology effectively in specific circumstances.
- Graduates must be able to develop efficient and effective IS solutions using appropriate technologies that can deliver competitive advantages to organizations.

 Graduates must be able to develop and incorporate changes in the planning and management of IS resources based on an increased understanding of the dynamic changes in the organization, IS and global environments.

Degree requirements

Students applying to the Master of Science in Information Systems must show evidence of competence in selected prerequisite areas of information systems including: application programming, systems analysis and design, database, telecommunications and hardware/software. Evidence of this competence may include formal course work, comparable training within a work environment or significant, relevant and recent work experience in the field. Students enrolled as majors in the program who do not have a formal background or equivalent training must take the appropriate undergraduate courses to satisfy the prerequisites prior to taking master's program courses. The required undergraduate courses are: INFO 300, INFO 350, INFO 360, INFO 361, INFO 370, INFO 364 and a course in calculus.

In addition to the VCU Graduate School graduation requirements, students who do not have a business degree must complete a minimum of four 500-level foundation courses (12 credit hours). Foundation courses may be waived for students who present satisfactory equivalent preparation at either the undergraduate or graduate level. Students who are required to take foundation courses may do so after admission. The foundation courses required will vary depending upon the student's background, career interests and the chosen area of specialization. Students applying to the program should consult with the master's program adviser to determine the foundation courses required for a particular area.

Curriculum requirements

Courses		Credit hours
Core courses		12
INFO 610 Analysis and Design of Database Systems	3	
INFO 620 Data Communications	3	
INFO 630 Systems Development	3	
INFO 640 Information Systems Management	3	
Concentration courses		18
CISS 634 Ethical, Social and Legal Issues in Computer and	3	
Information Systems Security		
INFO 614 Data Mining	3	
INFO 622 Internet Security Management	3	
INFO 644/CISS 644 Principles of Computer and Information Systems Security	3	
INFO 646 Security Policy Formulation and Implementation	3	
INFO 691 Topics in Information Systems	3	
Total graduate credit hours required (minimum)		30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Information Systems, Master of Science (M.S.) with a concentration in information risk, security and assurance with Christ University in Bangalore, India

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichem@vcu.edu (804) 828-4622

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program website: business.vcu.edu/graduate/msis.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Information Systems, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Information Systems, Master of Science (M.S.) with a concentration in information risk, security and assurance with Christ University in Bangalore, India			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
MC	4		CMAT CDE

Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GMAT or GRE
	Fall	Jul 1	
	Spring	Nov 1	
	Summer	Mar 1	

The VCU School of Business and Christ University in Bangalore, India have partnered to provide students with an opportunity to study at two universities and earn two degrees. Students who have already been admitted to the Christ University Master of Business Administration program are invited to apply to the VCU Master of Science in Information Systems with a concentration in information risk, security and assurance.

Students satisfy the master's foundation course requirements during the first year while in the Christ University M.B.A. program and then complete the 10 required VCU courses need for the Master of Science in Information Systems with a concentration in information risk, security and assurance. These courses are taken primarily at the VCU Monroe Park Campus and are designed to be completed in one calendar year.

In addition to the general admission requirements of the VCU Graduate School, applicants to the master's program in business administration must submit an upto-date resume.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

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 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The Master of Science in Information Systems program is designed to prepare students for specialized roles in information systems. The program is intended to provide a graduate-level, technically oriented curriculum that focuses on the design and development of information systems to solve real-world problems. The department's curriculum is focused on the rapidly emerging area known as enterprise information systems. Students may choose a curriculum with no concentration or a concentration in information risk, security and assurance. Graduates of the program are expected to be able to take significant roles in planning, organizing, managing, designing, configuring and implementing EIS systems using state-of-the-art technologies within organizations.

The information risk, security and assurance concentration within the degree is designed primarily for students interested in professional roles in business, industry or government. Program graduates will serve as leaders within the risk, security and assurance community and as strategic partners with the enterprise in which they work. They will stay attuned to and anticipate changes in the risk, security and assurance environment and ensure that security solutions create a sound, competitive and cost-effective advantage for the enterprise.

Student learning outcomes

- Graduates should be capable of communicating and networking effectively
 within their profession and within their organizations, serving the profession
 by applying this knowledge broadly and maintaining key technical expertise
 in order to sustain required levels of competitiveness.
- Graduates must have an understanding of information technology as it applies to business contexts and the skill to apply this technology effectively in specific circumstances.
- Graduates must be able to develop efficient and effective IS solutions using appropriate technologies that can deliver competitive advantages to organizations.
- Graduates must be able to develop and incorporate changes in the planning and management of IS resources based on an increased understanding of the dynamic changes in the organization, IS and global environments.

Degree requirements

Students applying to the Master of Science in Information Systems must show evidence of competence in selected prerequisite areas of information systems including: application programming, systems analysis and design, database, telecommunications and hardware/software. Evidence of this competence may include formal course work, comparable training within a work environment or significant, relevant and recent work experience in the field. Students enrolled as majors in the program who do not have a formal background or equivalent training must take the appropriate undergraduate courses to satisfy the prerequisites prior to taking master's program courses. The required undergraduate courses are: INFO

300, INFO 350, INFO 360, INFO 361, INFO 370, INFO 364 and a course in calculus

In addition to the VCU Graduate School graduation requirements, students who do not have a business degree must complete a minimum of four 500-level foundation courses (12 credit hours). Foundation courses may be waived for students who present satisfactory equivalent preparation at either the undergraduate or graduate level. Students who are required to take foundation courses may do so after admission. The foundation courses required will vary depending upon the student's background, career interests and the chosen area of specialization. Students applying to the program should consult with the master's program adviser to determine the foundation courses required for a particular area.

Curriculum requirements

Courses	Credit hours
Core courses	12
INFO 610 Analysis and Design of Database Systems	3
INFO 620 Data Communications	3
INFO 630 Systems Development	3
INFO 640 Information Systems Management	3
Concentration courses CISS 634 Ethical, Social and Legal Issues in Computer and Information Systems Security	18 3
INFO 614 Data Mining	3
INFO 622 Internet Security Management	3
INFO 644/CISS 644 Principles of Computer and Information Systems Security	3
INFO 646 Security Policy Formulation and Implementation	3
INFO 691 Topics in Information Systems	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Total graduate credit hours required (minimum)

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



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Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Department of Management

The Department of Management offers a variety of baccalaureate-, masters- and doctoral-level degrees and certificate programs. Courses offered include organizational behavior, human resource management, entrepreneurship, international management, strategic management, operations management, organizational communication, and decision sciences.

Areas of study

- Business administration and management (refer to the B.S. in Business concentrations for more information)
- Human resource management (refer to the B.S. in Business concentrations, the post-baccalaureate certificate and the minor for more information)
- International management (refer to the undergraduate certificate program)

Administration

Jose H. Dula

Associate Professor and Interim Chair www.bus.vcu.edu/management

Management courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to management (MGMT) courses.

Department of Marketing

The Department of Marketing provides students with a comprehensive introduction to the many topics and concepts that make up todays marketing professions. Additionally, students have the opportunity to participate in high quality learning experiences that broaden traditional ideas of the classroom in projects, exercises and internship experiences that involve a variety of business organizations as well as state and local government agencies.

Administration

Michael W. Little

Professor and Interim Chair www.bus.vcu.edu/marketing

Marketing courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to marketing (MKTG) courses.

da Vinci Center for Innovation

601 West Main Street Richmond, Virginia 23284 (804) 828-0190

www.davincicenter.vcu.edu

Kenneth B. Kahn, Ph.D.

Director

A collaboration of VCU's School of the Arts, School of Business and School of Engineering, the da Vinci Center for Innovation is a unique collegiate model that advances interdisciplinary innovation and technology-based entrepreneurship. Through academic and other program offerings, the da Vinci Center catalyzes innovation through the unity of arts, business and engineering disciplines as it

prepares students to enter a product innovation career and supports learning initiatives by partner organizations.

da Vinci Center courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to da Vinci Center innovation (INNO) courses.

Product Innovation, Master of (M.P.I.)

Graduate program director

Frank Franzak, Ph.D.

Associate professor, School of Business

fjfranza@vcu.edu

(804) 828-7090

Program website: davincicenter.vcu.edu/programs/master-of-prod-innovation/

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Product Innova	tion, Master of (M.P.I.)		
Degree: M.P.I.	Semester(s) of entry: Fall	Deadline dates: May 31	Test requirements: GRE, GMAT or portfolio depending on area of specialization
			International students TOEFL required

Special requirements:

At the time of application, an applicant declares an area of specialization: arts, business or engineering. The arts specialization requires the submission of a portfolio comprising 20 to 30 examples of representative work; the business specialization requires either the GMAT or GRE; and the engineering specialization requires the GRE.

A personal interview may be requested.

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. A bachelor's degree or equivalent from an accredited college or university
- 2. Except in very unusual cases approved by the graduate dean, a minimum undergraduate GPA of 3.0 on a 4.0 scale for at least the last two years of undergraduate work
- For applicants whose native language is not English, satisfactory scores from a standardized test commonly used and deemed appropriate for evaluation of English language proficiency, such as the TOEFL
- 4. Three letters of recommendation
- 5. Applicant's written statement of intent for pursuing graduate study in the product innovation discipline

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and

Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission and objectives

The Master of Product Innovation is administered by VCU's da Vinci Center, which is a collaboration of VCU's School of the Arts, College of Humanities and Sciences, School of Business and School of Engineering. Integrating arts, business and engineering principles, students will learn advanced product innovation topics pertaining to conceptualization, development and commercialization of new products. Through unique instruction and experiential learning that culminates with a year-long master's project, students will have a real product innovation experience that could result in true business creation and economic development opportunities. M.P.I. graduates will reflect product innovation and team-working skills that will enable them to serve in key leadership roles to stimulate the creation, development and management of new products and services.

Student learning outcomes

The M.P.I. program hones competency in the area of product innovation. Students will:

- Gain an in-depth understanding of and appreciation for cross-disciplinary innovation
- 2. Develop advanced product innovation skills
- 3. Hone teamwork and team management skills

Degree requirements

The Master of Product Innovation requires a minimum of 30 graduate credit hours for completion. In addition to general VCU Graduate School graduation requirements, students must:

- Complete the boot camp experience prior to the first semester of study in the program
- Complete the required core curriculum courses (12 or 15 credit hours of specified course work depending on undergraduate degree)
- 3. Complete two elective courses (6 credit hours) with one of these courses at the 600 level
- 4. Complete the master's project courses (12 credit hours) (The master's project is mandatory for all students.)

The program can be taken either on a full-time or part-time basis.

Curriculum requirements

INNO 600 Integrative Design Studio

Courses	Credit hours
Core requirements	12 or 15
Students must take at least two of the following courses, depending on which care do not correspond to the undergraduate degree. If the student	

which ones do not correspond to the undergraduate degree. If the student does not have an undergraduate degree in an arts, business or engineering discipline, all three courses must be taken. **Note:** Students are strongly encouraged to take all three courses regardless of undergraduate degree.

INNO 501 Arts Principles for Product Innovation	3
INNO 502 Business Principles for Product Innovation	3
INNO 503 Technology Principles for Product Innovation	3
All students will enroll in:	
INNO 590 da Vinci Project	3

Technical electives 6

Students will take technical elective course work which includes the following. All technical electives must be at the graduate level, with at least three credit hours at the 600 level.

INNO 691 Topics in Product Innovation

INNO 697 Guided Study

Other approved graduate-level course (Specific courses will be determined by the student with approval by the M.P.I. faculty committee.)

Master's project	12
INNO 651 Master's Project in Product Innovation I	6
INNO 652 Master's Project in Product Innovation II	6

Total number of graduate credit hours required (minimum)

Sample full-time enrollment plan of study

Courses	Credit hours
First year, fall semester	
INNO 501 Arts Principles for Product Innovation	3
INNO 502 Business Principles for Product Innovation	3
INNO 503 Technology Principles for Product Innovation	3
INNO 600 Integrative Design Studio	3
First year, spring semester	
INNO 590 da Vinci Project	3
Technical electives	6
Second year, fall semester	
INNO 651 Master's Project in Product Innovation I	6
Optional elective	3
Second year, spring semester	
INNO 652 Master's Project in Product Innovation II	6
Optional elective	3
Total number of graduate credit hours required (minimum)	30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

3

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements

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Other information

All students will be given information on policies and regulations during the first day of the M.P.I. boot camp experience.



2014-15 Graduate and Professional Programs Bulletin

School of Dentistry

The School of Dentistry was created in 1893 when the University College of Medicine opened with a dental department as one of its original divisions. The Medical College of Virginia inaugurated a dental education program in 1897, and in 1913 the two schools were merged to form the MCV School of Dentistry.

In 1968, by an act of the Virginia General Assembly, MCV was merged with Richmond Professional Institute to form Virginia Commonwealth University. The School of Dentistry is located on VCU's MCV Campus.

The facilities of the School of Dentistry are housed in the Wood Memorial, Lyons and Perkinson buildings and contain clinical facilities, research facilities, classrooms, student laboratories, departmental offices and a computer-learning laboratory.

The school provides opportunities for selected, qualified individuals to study dentistry under the most favorable conditions and in accordance with the standards established by the Commission on Dental Accreditation of the American Dental Association

The degree of Doctor of Dental Surgery (D.D.S.) is awarded to graduates of the school's professional program and the Bachelor of Science degree to graduates of the Division of Dental Hygiene.

Graduates of the advanced dental education programs in endodontics, orthodontics, pediatric dentistry and periodontics are awarded the Master of Science in Dentistry degree.

Administration

520 North 12th Street P.O. Box 980566 Richmond, Virginia 23298-0566 (804) 828-9184 Fax: (804) 828-6072 www.dentistry.vcu.edu

David C. Sarrett

Dean

Carolyn Booker

Associate Dean, Student Services

James C. Burns

Associate Dean, Clinical Dental Education

B. Ellen Byrne

Senior Associate Dean

Laurie C. Carter

Director of Advanced Dental Education Programs

Michael Healy

Assistant Dean, Admissions

Rebecca Pousson

Executive Associate Dean

Harvey A. Schenkein

Assistant Dean, Research

Accreditation

Dental Hygiene (bachelor's degree) Commission on Dental Accreditation

Dentistry (D.D.S.)

Commission on Dental Accreditation

Advanced Dental Education Programs (including Endodontics, Oral and Maxillofacial Surgery, Orthodontics, Pediatric Dentistry, Periodontics, and Advanced Education in General Dentistry)

Commission on Dental Accreditation

Mission

The VCU School of Dentistry is a public, urban, research dental school, supported by Virginia to serve the people of the commonwealth and the nation. The school's mission is to provide educational programs that prepare graduates qualified to provide dental care services; generate new knowledge through research and other scholarly activity; and provide quality oral health care to the public and service to the community.

Philips Institute of Oral and Craniofacial Molecular Biology

Andrew Yeudall

Interim Director, The Philips Institute, and Professor of Oral and Craniofacial Molecular Biology and Microbiology and Immunology

The mission of the Philips Institute of Oral and Craniofacial Molecular Biology is to serve the university and the commonwealth of Virginia as a center of educational and research excellence focused on infectious, neoplastic and genetic diseases of the oral cavity, head and neck.

Dentistry, Doctor of Dental Surgery (D.D.S.)

The Doctor of Dental Surgery is a four-year program in general dentistry leading to the D.D.S. degree and emphasizing study in three broad areas: basic sciences, clinical sciences and social sciences. The academic year begins in July and extends through May.

Admission requirements

A minimum of 90 semester hours (or equivalent) in an accredited college or university is required and must be documented. Most acceptances have a bachelor's degree and/or four years of college. Required courses are general biology, biochemistry, general chemistry, organic chemistry, physics and English. Laboratory experiences are required for those courses where applicable. Biology courses should emphasize zoology rather than botany. Courses in general microbiology or bacteriology, animal physiology, immunology, histology, genetics, embryology, the behavioral sciences, and courses involving psychomotor skills are strongly recommended. Academic credits presented by an applicant must be acceptable for credit toward a degree in the institution in which the courses are taken. Individuals interested in pursuing a career in dentistry should schedule an appointment in the Office of Admissions for individual guidance.

In order to successfully complete the dental curriculum at VCU, students must meet non-academic criteria for motor, sensory and observation, communication, cognitive and behavioral abilities in the document Technical Standards for Dental Education Programs for VCU School of Dentistry. Accordingly, applicants may be required to prove their proficiency in American English via standardized tests and interviews. An applicant may consider the option of postponing matriculation until such time that he/she can meet these requirements.

Participation in the Dental Admission Test (DAT) of the American Dental Association is required. It is recommended that this test be taken the year before the intended matriculation year. Applicants are encouraged to take the examination more than one time, and the best set of scores is used as the official set. Information about the Dental Admission Test can be obtained from: a) your prehealth advising office of your undergraduate school, b) VCU, School of Dentistry Office of Admissions or c) the American Dental Association, Department of Testing Web site: http://www.ada.org/prof/ed/testing.

Selection factors

VCU is a state-supported, public university and gives admission preference to state residents. All applicants are evaluated by uniform criteria without regard to age, race, color, national origin, gender, religion, sexual orientation, veteran's status, political affiliation or disability. Students are accepted by the Admissions Committee on the basis of excellence of predental education, DAT scores, recommendations, experiences in dentistry and results of personal interviews with members of the committee. The interview process is standardized and designed to determine motivation, knowledge of and interest in the dental profession, and to afford the applicant an opportunity to provide additional information pertaining to his/her application. Selection occurs on a rolling admissions basis, and once the class is complete, an alternate list is created. Members of minority groups underrepresented in dentistry are especially encouraged to apply. Each year a certain number of students who are not accepted into the freshman class are invited to take selected courses with this class. Their performance in these courses plays a vital role in their being considered for the following year's admissions process.

Admission with advanced standing

The School of Dentistry will consider applicants for admission with advanced standing on an individual basis depending upon positions available and

qualifications of the applicant. Pre-admission evaluation of skills and knowledge by performance testing is required prior to admission consideration.

Application procedures

The School of Dentistry participates in the American Association of Dental Schools Application Service (AADSAS). All applicants are required to submit credentials through this service. Re-applicants must also reapply through the application service. Application forms can be obtained from AADSAS, 1400 K St. N.W., Suite 1100, Washington, D.C. 20005 (e-mail to aadsas.appl@adea.org or call (202) 289-7204, predental advisers in colleges and universities, and the Office of Admissions, School of Dentistry, Virginia Commonwealth University, P.O. Box 980566, Richmond, VA 23298-0566.

Application to the School of Dentistry can be made through AADSAS on or after May 15 and must be received by AADSAS no later than Nov. 1 of the year preceding intended matriculation.

AADSAS compiles academic records and other pertinent information and forwards these with the application to the School of Dentistry. Qualified applicants are then requested to submit supplemental information, such as the VCU supplemental application. The application fee is \$70.

Applicants will be notified of decisions according to guidelines established by the American Association of Dental Schools. The first acceptances are sent out on Dec. 1, and a \$500 deposit (credited to tuition) is required by Jan. 15. After Feb. 1, the deposit must be received within two weeks following notification of acceptance. A second deposit of \$300 credited to tuition is due on May 1. Both deposits are nonrefundable.

A letter of acceptance offers the candidate a position in the class entering for the session cited. Receipt by the Office of Admissions of the initial \$500 nonrefundable tuition deposit within the prescribed period reserves the position in the class. Failure to reserve a position results in that position being offered to another candidate. A second \$300 nonrefundable tuition deposit initiates active administrative processing of matriculation into the first-year class. Failure to send this deposit results in loss of position, and the position is then offered to another candidate. The act of matriculation also implies a willingness on the part of the student to comply with university rules and regulations, to take an interest in maintaining the ideals of the institution and to conduct himself/herself in a manner befitting a member of the dental profession.

For more information please visit the School of Dentistry Web site at www.dentistry.vcu.edu.

Financial assistance

A general description of financial aid based on demonstrated need is contained in the Professional Studies at VCU chapter of this bulletin. Financial need-based aid programs available to dental students include Health Professions Student Loans, Loans for Disadvantaged Students, Virginia Rural Dental Scholarship Program, and federal educational loans. Further information may be obtained from the offices of Admissions, Financial Aid and Student Affairs of the School of Dentistry.

Honors and awards

The School of Dentistry presents numerous awards, honors and scholarships to students during the academic year. These awards are presented during special school events, including graduation, Student Clinic Day and the Senior Gala. Students who excel in scholarship and leadership also may be eligible for membership in university or school honor societies. In addition, students who meet established criteria may be eligible for scholarships or election to membership in organizations related to dentistry.

Omicron Kappa Upsilon is the national honorary dental society. Each year the society selects those students who, in addition to scholarship, have demonstrated exemplary traits of character and potential qualities of future professional growth and attainments

Phi Kappa Phi is a national honor society that recognizes and encourages superior scholarship. It accepts members from applied and professional fields of study, as well as from letters, arts, sciences and humanities. The VCU chapter was installed in 1977.

Alpha Omega Scholarship Award is presented to the graduating student who has attained the highest scholastic rating for his/her four years of dental study.

Harry Lyons Scholarship Award is awarded to the graduating senior dental student who has attained the highest grade-point average for his/her four years of dental school

A. D. Williams Foundation Award is an annual stipend made to a student in each class who demonstrates, by virtue of high scholastic attainment and professional performance, unusual promise and ability. Character, motivation, intellectual curiosity and realization of the opportunities for intellectual development will be considered in the award, which is made at the end of the academic year.

O.M. Clough Award is awarded to a graduating senior dental student for outstanding achievement in restorative dentistry.

William B. Fitzhugh Scholarship Award is awarded to an incoming dental student who has demonstrated financial need, preference being given to students who have demonstrated athletic abilities at their undergraduate institution.

R. Ashton Gay and Henry F. Vaughan Scholarship is awarded to a student who is a Virginia resident at the VCU School of Dentistry, demonstrates academic excellence and leadership during the D-1 year, and has demonstrable need of financial assistance at the beginning of the D-2 year.

Edmond T. Glenn Award is awarded on the basis of financial need to a student ranked in the upper half of the class at the end of the D-3 year and who has been involved in school/class activities.

International College of Dentists Award is presented to the graduating dental student who has shown the most professional growth and development during his/her years of dental study.

Pierre Fauchard Academy presents an award to the graduating dental student who has exhibited leadership qualities and through his/her accomplishments has demonstrated dedication to the advancement of dental literature.

The Richmond Dental Study Club Memorial Endowment Scholarship is awarded annually to a D-3 (junior) dental student based on his/her having a GPA in the top 25 percent of the class and demonstrating exceptional leadership and participation in school and/or community extracurricular activities at the end of the D-2 (sophomore) year.

Alexander Kaufman Award is awarded to a junior dental student based on class leadership and financial need.

P.D. Miller Award goes to the dental student judged by faculty as having demonstrated excellent understanding of the relationship between restorative dentistry and periodontics.

Robert M. Saunders Scholarship is awarded to a junior or senior Virginia resident predoctoral dental student with excellent academic credentials.

Student learning outcomes

D.D.S. students will demonstrate the mastery of an in-depth study of human anatomy, genetics, material science, microbiology, pathology, pharmacology and physiology; the actual practice of dentistry; exposure to specialties; dental health needs; system of health care delivery; practice management; professional ethics; and behavioral factors. Laboratory, clinical experiences are required throughout four years to develop skills and judgment vital to the practice of general dentistry.

Curriculum

The curriculum in the dental school is organized into a competency-based, four-year program leading to the Doctor of Dental Surgery (D.D.S.) degree. The academic year begins in July and extends through June. The program emphasizes study in three broad areas: biomedical sciences, clinical sciences and behavioral sciences.

The biomedical sciences include the in-depth study of human anatomy, genetics, material science, microbiology, pathology, pharmacology and physiology.

The clinical sciences prepare the student for the actual practice of dentistry and provide exposure to the various specialties in dentistry.

The behavioral sciences cover such topics as dental health needs, the system of health care delivery, practice management, professional ethics and behavioral factors

Laboratory and clinical experiences are offered throughout the four years to develop the skills and judgment vital to the practice of general dentistry.

In general, courses offered as part of the curriculum in dentistry are not available to other students in the university. Exceptions may be granted by the dean of the School of Dentistry to students enrolled in graduate degree programs upon written request of the department chair in which the student is seeking a degree.

	Credits
Freshman, first semester	
ANAT 501 Dental Gross Anatomy	6.5
ANAT 503 Dental Neuroanatomy	1.0
DENS 515 Clinical Skills I	1.0
DENS 540 Dental Practice Management I	1.0
GENP 511 Oral Anatomy and Occlusion	4.0
GENP 512 Operative Dentistry*	
MICR 513 Infection and Immunity in Dentistry	4.0
OCMB 510 Evidence-based Dentistry	1.0
PERI 525 Periodontics I	1.0
Total	19.5
Freshman, second semester	
ANAT 502 Microscopic Anatomy	5.0
DENS 516 Clinical Skills II	3.0
DENS 524 Review of Literature in Dentistry	1.0
GENP 512 Operative Dentistry	10.0
GENP 514 Fundamentals of Occlusion	2.0
PATH 601 General Pathology	6.0
PERI 526 Periodontics II	3.5
PHIS 502 Physiology and Pathophysiology (Dentistry)	5.0
Total	35.5
Sophomore, first semester	
DENS 619 Review of Literature in Dentistry II	1.0
DENS 621 Occlusion	2.0
DENS 625 Clinical Skills III	5.0
DENS 640 Dental Practice Management II	1.0
GENP 620 Cariology	2.0
ORPT 621 Dental Radiology	1.0
ORPT 622 Oral Pathology*	
ORTH 623 Principles of Orthodontics	2.0
PHTX 609 Dental Pharmacology and Pain Control*	
PROS 622 Preclinical Fixed Prosthodontics*	
PROS 624 Preclinical Removable Denture Prosthodontics*	
Total	14.0
Sophomore, second semester	
DENS 611 Introduction to Professionalism	1.0
DENS 623 Clinical Skills IV	7.0
DENS 628 Review of Dental Literature	1.0
ENDO 622 Principles of Endodontics	2.5
HGEN 631 Advanced Dental Genetics	1.0
ORPT 622 Oral Pathology	3.0
ORSG 622 Introduction to Oral Surgery	1.0
PEDD 622 Introduction to Pediatric Dentistry	2.0
PHTX 609 Dental Pharmacology and Pain Control	4.0
PROS 622 Preclinical Fixed Prosthodontics	6.0
PROS 624 Preclinical Removable Prosthodontics	6.0
PROS 626 Preclinical Dental Implantology	2.0
Total	36.5
Junior, first semester	
DENS 730 Practice Management III	1.0
DENS 735 Patient Management and Professional Conduct	3.0
DENS 736 Review of Literature IV: Assessment of Patients With	
Special Needs*	
ENDO 731 Endodontic Therapy	1.0
ENDO 739 Clinical Endodontics III*	
GENP 739 Clinical Operative III*	
ORPT 737 Radiology Rotation*	

ORSG 731 Medical Management and Emergency Care for the Dental	2.0
Patient	2.0
ORSG 739 Clinical Oral Surgery III*	
ORTH 739 Clinical Orthodontics III*	
PEDD 733 Advanced Pediatric Dentistry	1.0
PEDD 739 Clinical Pediatric Dentistry III*	
PERI 733 Periodontics III	1.0
PERI 739 Clinical Periodontics III*	2.0
PHTX 611 Dental Pharmacology and Pain Control PROS 731 Complete Denture Programmers	1.5
PROS 731 Complete Denture Prosthodontics PROS 735.01 Removable Prosthodontics Diagnosis and Treatment	1.5
PROS 739 Clinical Removable Prosthodontics III*	1.5
PROS 739 Clinical Fixed Prosthodontics III*	
Total	14.0
Junior, second semester	
DENS 735 Patient Management and Professional Conduct	3.0
DENS 736 Review of Dental Literature	1.0
ENDO 739 Clinical Endodontics III	1.5
GENP 739 Clinical Operative III	5.0
GENP 742 Treatment Planning Seminar	2.0
ORPT 732 Clinical Oral Pathology and Oral Medicine	1.0
ORPT 737 Radiology Rotation**	
ORSG 733 Principles of Oral and Maxillofacial Surgery	1.5
ORSG 739 Clinical Oral Surgery III	1.5
ORTH 733 Orthodontic Therapy	1.0
ORTH 739 Clinical Orthodontics III	1.0
PEDD 739 Clinical Pediatric Dentistry III	2.0
PERI 739 Clinical Periodontics III	5.0
PROS 739 Clinical Removable Prosthodontics III PROS 739 Clinical Fixed Prosthodontics III	3.5 2.0
	31.0
Total	31.0
Senior, first semester	1.0
DENS 740 Practice Management IV DENS 745 Patient Management and Professional Conduct	1.0 3.0
DENS 752 Clinical General Practice Dentistry*	J.0
DENS 762 Service Learning	
ORPT 747 Radiology Rotation (continuation of ORPT 737)	1.5
ORSG 749 Oral Surgery/Urgent Care Clinic*	
PEDD 749 Clinical Pediatric Dentistry IV*	
Total	5.5
Senior, second semester	
DENS 745 Patient Management and Professional Conduct	3.0
DENS 752 Clinical General Practice Dentistry	24.0
DENS 762 Service Learning	6.0
ORSG 749 Oral Surgery/Urgent Care Clinic	2.0
PEDD 749 Clinical Pediatric Dentistry IV	2.0
Total	37.0
Program total	193.0
* Continues into second semester.	
** Completed first semester senior year.	

Academic performance evaluation

The faculty of the VCU School of Dentistry has the responsibility for evaluating the student's academic performance. It is incumbent on the course directors or their designees to specify, at the time that courses first convene, the criteria to be used in student assessment and the standards by which they will be judged.

The VCU School of Dentistry Guidelines for the Evaluation of Student Performance and Academic Status are distributed to all students at the beginning of their study. They are available upon request from the Office of Academic Affairs, School of Dentistry.

Advanced Dental Education

Martha C. Clements

Director, Continuing Education

Office of Continuing Education

For every professional person who serves the health sciences, education must be a lifetime commitment.

Graduation from dental school is the beginning of a lifelong educational experience for the serious, conscientious student of dentistry. Regardless of how well prepared a health professional may be at the time of graduation, the adequate knowledge of yesterday is often insufficient information for today and tomorrow. With the rapid advancements made in dental technology and techniques, the professional must constantly seek new knowledge if the health care provider is to improve the health care given to patients.

Although the majority of continuing education courses are presented at the School of Dentistry, some are offered in other locations. The courses, which vary in length from one to four days, are scheduled throughout the year and consist of a variety of instructional methods from didactic to hands-on participation in clinical programs.

The instructional staff is comprised of faculty from the VCU School of Dentistry, guest lecturers from other dental schools, and members of the dental profession and related professions from the United States and other countries.

Advanced Dental Education programs

The School of Dentistry provides advanced dental education programs in the areas of endodontics, oral and maxillofacial surgery, orthodontics, pediatric dentistry, periodontics, and advanced education in general dentistry (AEGD). Satisfactory completion of the program leads to the award of a certificate of training and certifies eligibility for examination by the appropriate specialty board. All programs are accredited by the Commission on Dental Accreditation of the American Dental Association. Those enrolled in the advanced education programs are full-time resident trainees, considered to be the equivalent of full-time students. Under special circumstances, trainees may be accepted into some programs on a part-time basis.

Students enrolling in endodontics, orthodontics, pediatric dentistry and periodontics also are awarded a Master of Science in Dentistry degree upon completion of the requirements for the certificate and successful defense of a thesis. The certificate program and Master of Science in Dentistry degree must be completed concurrently. See the School of Dentistry Graduate Program for more information on the Master of Science in Dentistry degree program.

Applications for admission should be directed to the director of the appropriate program, School of Dentistry, Virginia Commonwealth University, P.O. Box 980566, Richmond, VA 23298-0566. Successful completion of Part II of the National Board Dental Examination is required prior to admittance to the program.

Advanced Education in General Dentistry

Debra Haselton

Professor and Program Director

The purpose of this 12-month Advanced Dental Education residency program is to provide advanced education and clinical experience to prepare dental school graduates for a career in the practice of comprehensive, general dentistry. This program has a strong emphasis on treatment planning, experience with new technology, developing skills in aesthetic dentistry and restoration of dental implants. Graduates of this program will have attained added competency and confidence in all areas of dental care, practice management and professional responsibility. Further, this program provides residents with meaningful experiences in the delivery of dental care to diverse populations and people at high risk for dental disease. A strong affiliation exists between the School of Dentistry and the statewide Virginia Area Health Education Center (AHEC), whose mission is to increase primary health care in underserved areas. The AEGD program works in concert with AHEC to deliver dental care and recruit/train minority health care providers from health professional shortage areas.

The School of Dentistry is committed to advanced dental education. The residents will receive hands-on experience with diagnostic and therapeutic care of special patient populations in addition to extensive training in the art and science of general dentistry. AEGD residents may be required to participate in off-site

clinical experiences outside the city of Richmond, Va. Funds will be provided for travel and lodging when required.

Eligibility and selection

Dentists with the following qualifications are eligible to apply for the AEGD program: Dental graduates from institutions in the United States accredited by the Commission on Dental Accreditation of the American Dental Association and who have passed Part I of the National Board Examination.

Selection criteria include: didactic and clinical achievements, extramural experience, interpersonal skills and a demonstrated commitment to pursue a career in general dentistry. Every effort is made to recruit qualified applications from minority dentists and dentists from health professional shortage areas or dentists who profess a desire to serve in these areas. A selection committee consisting of the program director, the assistant dean for admissions, members from specialty areas, former residents and current residents will screen all applications. Using the above-mentioned selection criteria, the most promising applicants will be invited for personal interviews. Trainees and alternates will be selected. This program participates in the Postdoctoral Application Support Service Program. Telephone (804) 828-3601; fax (804) 828-3159; e-mail drhaselton@vcu.edu.

Endodontics

Karan Replogle

Professor and Department Chair, Endodontics

The Advanced Dental Education Program in Endodontics offers the student a comprehensive 24-month course of study in clinical, didactic and research endodontics. The program is designed to educate qualified individuals to pursue careers as educators, researchers and practicing clinicians, and meets the educational requirements for limitation of practice to the specialty of endodontics and examination by the American Board of Endodontics. The program is composed of several interrelated phases. The first phase consists of lecture courses that provide the student with a firm biological basis for patient care. The second phase consists of lectures, seminars and clinical training designed to produce clinical mastery of endodontics. The third phase is research experience gained through completion of an individual research project and master's thesis.

Students completing the program earn a specialty certificate in endodontics and a Master of Science in Dentistry degree. Students must complete the requirements for the master's degree prior to being awarded the specialty certificate.

The program conforms to the Standards for Advanced Specialty Education in Endodontics and carries a full approval status from the Commission on Dental Accreditation of the American Dental Association.

Oral and Maxillofacial Surgery

Robert A. Strauss

Professor and Program Director

The oral and maxillofacial surgery program is designed to provide extensive didactic and clinical experience in all aspects of the specialty. Those who complete training satisfactorily fulfill the prerequisites for examination and certification by the American Board of Oral and Maxillofacial Surgery.

The didactic portion of the program includes formal courses in oral pathology, anatomy and physical diagnosis, as well as numerous weekly conferences and seminars. Clinical rotations on oral pathology, anesthesia, medicine, surgical oncology, neurosurgery, cardiology, general surgery, emergency room and the trauma services are used to supplement the trainee's surgical experience. Throughout the program there is a constant correlation of the clinical experience with the biomedical sciences.

Through the multiple clinical and didactic facilities of the VCU Medical Center complex, the McGuire Veterans Affairs Medical Center, and St. Mary's Hospital, there is ample material for education in the latest oral and maxillofacial surgical techniques. The oral and maxillofacial surgery service is responsible for diagnosis and management of diseases and injuries related to the oral and facial region. Trainees are involved in all aspects of treatment including simple and complicated oral surgery, anesthesia and pain control, oral and maxillofacial trauma, preprosthetic surgery, orthognathic surgery, head and neck pathology, oral and maxillofacial reconstruction, temporomandibular joint surgery, laser surgery, cosmetic facial surgery, and microneural and microvascular surgery. During the four years, the trainee assumes ever-increasing responsibilities as time and abilities dictate.

Upon satisfactory completion of the four-year residency, the trainee may earn the Doctor of Medicine degree from the School of Medicine by enrolling in the second and third years of that curriculum.

Orthodontics

Bhavna Shroff

Professor and Program Director

The Department of Orthodontics at VCU's MCV Campus offers a 24-month advanced education in orthodontics and Master of Science in Dentistry program. The program teaches state-of-the-art clinical care in an environment modeled after private orthodontic practice. The curriculum is composed of seminars and small-group instruction with emphasis on critical thinking and problem solving. Contemporary concepts of orthodontic treatment are reviewed for substantive and scientific content. Also included are regularly scheduled orthognathic surgery conferences and seminars with other dental and medical specialists.

The postgraduate program is designed to develop skilled practitioners who are prepared to grow with the future and manage busy orthodontic practices. The goal is not only to familiarize future orthodontists with contemporary techniques but also to teach them how to interpret cutting-edge scientific information and use it to approach clinical challenges logically and practically. Clinical experience consists of a wide variety of orthodontic patients, including complex cases requiring orthognathic surgery and patients with facial clefts and other craniofacial abnormalities. An original research experience is an integral part of the program, with each project intended to produce results suitable for publication in a nationally circulated orthodontic journal. The successful completion of a research project is a requirement of the program. All senior residents present their research at the Virginia Association of Orthodontists meeting. The program qualifies students to take the written portion of the American Board of Orthodontics examination in the senior year. Residents are required to take the written portion of the American Board of Orthodontics examination prior to graduation, and are encouraged to continue and complete the board certification process. This exam is given prior to the American Association of Orthodontists meeting.

Students completing the program earn a specialty certificate in orthodontics and Master of Science in Dentistry degree. Students must complete the requirements for the master's degree prior to being awarded the specialty certificate.

The program is accredited by the Commission on Dental Accreditation of the American Dental Association.

Pediatric Dentistry

John H. Unkel

Associate Professor and Program Director

The Advanced Education Program in Pediatric Dentistry offers the student a comprehensive 24-month course of study in clinical and didactic pediatric dentistry. The program is designed to meet the educational requirements for limitation of practice to the specialty of pediatric dentistry and examination by the American Board of Pediatric Dentistry. The program emphasizes a diversified educational experience. The program places emphasis on all phases of pediatric dentistry including trauma, preventive dentistry, restorative, endodontics, periodontics, oral surgery, orthodontics and hospital dentistry. The program enables the student to provide comprehensive oral health care for the well child, the medically compromised and children with special needs. There is extensive use of various treatment modalities for pain control and behavioral management, such as sedation, analgesia and general anesthesia. Research experience is gained through completion of an individual research project and master's thesis.

Seminars are held in pediatric dentistry, orthodontic diagnosis and treatment, treatment planning, growth and development, cephalometric analysis, pediatric dentistry literature review, and behavior guidance. Formal courses in biostatistics, principles of pediatrics, pediatric advanced life support, head and neck anatomy, neurodevelopmental disabilities, leadership seminars, basic sciences, and clinical core courses are required. The students participate in undergraduate clinical teaching and supervision.

One-month rotations occur in general anesthesia, and two-week rotations occur in the pediatric emergency room and pediatric medicine. During the year, rotations in cleft palate, craniofacial anomalies and hemophilia occur. Optional elective rotations are available in treating institutionalized handicapped patients (in Lynchburg). Elective didactic courses also are available.

Students completing the program earn a specialty certificate in pediatric dentistry and a Master of Science in Dentistry degree. Students must complete the requirements for the master's degree prior to being awarded the specialty certificate.

The program is accredited by the Commission on Dental Accreditation of the American Dental Association.

Periodontics

Thomas C. Waldrop

Professor and Program Director

The advanced education program in periodontics consists of a 36-month clinical and didactic curriculum leading to a certificate in periodontics. Students are responsible for all materials and make up of lost clinical time. Courses in the basic and clinical sciences, medicine, head and neck anatomy, statistics, and advanced cardiac life support are required. Students are responsible for attending and preparing for lectures, current and periodontal literature, medical-oral medicine, treatment planning, case presentation, and surgical seminars. No grade less than 80 percent or passing is acceptable from any periodontal or basic science course work. Less than passing grades may require retesting or retaking of a course. Students are expected to be able to utilize a computer to prepare lectures and to access Internet resources

Students are responsible for documentation of clinical and course work data. Specified digital intra-oral camera and documentation of all clinical cases and department archiving is required. Students are responsible to the service for rotations in general medicine, dental anesthesiology and oral pathology. Proficiency and certification in intravenous conscious sedation is required. Students are responsible for clinical and classroom teaching to undergraduate and specialty students. Research on a topic that is reviewed and approved by a faculty committee is required. Upon completion of the research, the student is required to prepare a thesis, defense and manuscript for publication. Certificates are not awarded until completion of the Master of Science in Dentistry requirements. Students are responsible for the purchase of program-required equipment, instruments, books and all associated fees. All students are required to become student members of the American Academy of Periodontology.

Combined Master of Science (M.S.)/Doctor of Philosophy (Ph.D.) and Doctor of Dental Surgery (D.D.S.)

In cooperation with the School of Dentistry, students in dentistry with an interest in academic and research careers are afforded the opportunity to undergo advanced degree training while in dental school or residency. Admission of students enrolled in the School of Dentistry to combined degree programs is processed through the Office of Graduate Education of the School of Medicine by established procedures. The Dental Aptitude Test may be accepted in lieu of the GRE as an admission requirement. No application fee is required of students already regularly enrolled as degree-seeking graduate students at the university.

The requirements for a combined professional school/graduate school degree in basic health sciences are equivalent to those required of students seeking a graduate degree alone and are determined by the individual departments.

Dentistry, Master of Science in (M.S.D.) with a concentration in endodontics

Program accreditation

Commission of Dental Accreditation of the American Dental Association

Graduate program director

Karan J. Replogle, D.D.S., M.S. kjreplogle@vcu.edu (804) 828-0784

Additional contact

Jennifer S. Gay Administrative assistant, curriculum and advanced education jgay3@vcu.edu (804) 628-2027

Program website: endodontics.vcu.edu/postgrad

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Dentistry, Doctor of Dental Surgery (D.D.S.)

Dentistry, Doctor of Dental Surgery (D.D.S.)/Master of Science (M.S.) [combined]

Dentistry, Doctor of Dental Surgery (D.D.S.)/Doctor of Philosophy (Ph.D.) [combined]

Dentistry, Doctor of Dental Surgery (D.D.S.), advanced dental education Dentistry, Master of Science in (M.S.D.) with a concentration in orthodontics Dentistry, Master of Science in (M.S.D.) with a concentration in pediatric dentistry Dentistry, Master of Science in (M.S.D.) with a concentration in periodontics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Dentistry, Master of Science in (M.S.D.) with a concentration in endodontics			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
M.S.D.	Fall (Jul 1 start date)	Aug 15	National Dental Boards, parts 1 and 2

Special requirements:

Applicants from countries where English is not the primary and official language must complete the TOEFL with a minimum score of 100.

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Graduation from an accredited university or its equivalent, with a Doctor of Dental Surgery or Doctor of Medicine in Dentistry or the international equivalent
- For international students, an external credential evaluation of all international transcripts to complete the application (WES, ECE, and AACRAO are some of the recommended NACES-approved providers.)
- One "dean's letter" from the academic institution from which the individual received the dental degree that gives class rank, GPA and overall academic recommendation
- Two letters of recommendation from individuals who are in a position to judge the applicant's ability to engage in graduate study and pursue advanced dental training
- A written letter of professional intent or biographical statement that reflects the candidate's desire to pursue the specialty and the intent upon receipt of the degree and certificate
- 6. A resume or curriculum vitae
- An administrative application fee made payable to the Department of Endodontics, School of Dentistry (See website for details. This fee is in addition to the application fee that has to be paid with the submission of the graduate application. One year of an AEGD, GPR or the private practice equivalent is preferred but not required.)

Admission to the advanced dental specialty program in endodontics is through American Dental Education Association Postdoctoral Application Support Service. PASS historically opens to receive applications mid-May of the year prior to the year for which the candidate wishes to enroll and is open until Aug. 15. Please refer to the VCU School of Dentistry website, Department of Endodontics postgraduate information or ADEA PASS for specific yearly dates of the application period.

Candidates are required to interview in person. Invitations to interview followed by an invitation to accept a position in the residency are extended by the program director in the fall at the close of the application period. For example, the candidate will submit an application through ADEA PASS during the application period (May through August). An invitation will be extended to interview with the advanced dental specialty program in endodontics admission committee in August or September. The candidate will be informed of selection or nonselection by Nov. 15. The resident will start the clinical program the following June and the academic program the following September.

Admission to the Master of Science in Dentistry degree program is made after the candidate has accepted a residency position in the advanced dental specialty program in endodontics.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The advanced dental specialty education program in endodontics offers the resident a comprehensive 24-month course of study in clinical and didactic endodontics. The program is designed to educate qualified individuals to pursue careers as practicing clinical dental specialists in endodontics. The program meets the educational requirements for limitation of practice to the specialty of endodontics and prepares the student for examination by the American Board of Endodontics.

Students completing the program earn a specialty Certificate in Endodontics and a Master of Science in Dentistry degree. The program conforms to the Standards for Advanced Specialty Education in Endodontics and carries a full approval status from the Commission on Dental Accreditation of the American Dental Association.

Student learning outcomes

Graduates of this program will:

- Formulate and conduct a relevant research project as evidenced in the completion of a master's thesis in a publishable format for a refereed journal
- 2. Be equipped to practice evidence-based endodontics
- Have demonstrated the ability to communicate with patients, colleagues in general dentistry, dental specialties, medicine and other health care practitioners in the provision of ethical and informed patient care
- 4. Be proficient in:
 - a. Diagnosis, treatment planning and prognosis of pulpal and periradicular disease
 - Provision of nonsurgical endodontics, retreatment and surgical endodontics
 - c. Outcome assessment
 - d. Diagnostic imaging technologies
 - e. Management of medically compromised patients
 - f. Emergency management of endodontic conditions
 - g. Management of orofacial pain and dental anxiety
 - h. Use of magnification technologies
 - i. Use of emerging techniques of endodontic treatment
 - j. Management of traumatic dental injuries

 Be eligible to sit for the Diplomate Boards of the American Board of Endodontists

Degree requirements

All course work must be completed within the 24-month timeframe for the program. Any extension of the 24-months is at the discretion of the program director. Extensions are approved only in extenuating circumstances.

In addition to general VCU Graduate School graduation requirements, a cumulative GPA of 3.0 must be maintained. Residents must receive a minimum grade of B for all required courses. A student with a grade of C in a required course may be required to repeat the course. A second grade of C in a required course may result in dismissal from the program. At the discretion of the program director, a resident retaking a required course may still be eligible to take the comprehensive written and oral examinations and to start the thesis research process prior to successful completion of the repeat of the course.

In the last semester of the second year the resident will take a written and an oral comprehensive examination designed to evaluate the resident's ability to integrate the didactic and clinical course material, demonstrate critical-thinking skills and demonstrate command of evidence-based endodontics. Both the written and oral examinations must be successfully completed to receive the specialty Certificate in Endodontics.

The Certificate of Endodontics, conferred by the School of Dentistry, is only conferred upon completion and awarding of the Master of Science in Dentistry.

The residents must formulate, complete and defend a research project. The resident will prepare a manuscript in a thesis format or in the publishable format of a refereed journal. The project must be completed, defended and presented in a research forum in order for the resident to qualify for receipt of the Master of Science in Dentistry.

Curriculum requirements

Courses	Credit hours
DENS 550 Update in Practice Administration	1
DENS 580 Biostatistics and Research Design in Dentistry (2 credits taken twice)	4
DENS 660 Interdisciplinary Care Conference (.5 credits taken four times)*	2
DENS 699 Thesis Guidance (2 credits taken four times)	8
DENS 700 Basic Sciences and Graduate Dentistry	3
ENDO 522 Introduction: Specialty of Endodontics	2.5
ENDO 530 Advanced Oral Pathology (1 credit taken twice)	2
ENDO 532 Management of Medical Emergencies in the Dental Office (1 credit taken twice)	2
ENDO 560 Endodontic Therapy Lectures (2 credits taken three times)	6
ENDO 650 Endodontic Topic Literature Review (2 credits taken four times)	8
ENDO 652 Endodontic Clinical Seminars (2 credits taken four times)	8
ENDO 654 Endodontic Management of the Medically Compromised Patient (1 credit taken twice)	2
ENDO 656 Endodontic Current Literature Review (1 credit taken four times)	4
ENDO 680 Clinical Endodontics (5 credits taken four times)	20
Total graduate credit hours required (minimum)	72.5

Plan of study

The following illustrates how the course requirements are met during the 24 months of the program. No additional class work or course work is required other than the required courses listed below.

Fall semester, year one

DENS 580 Biostatistics and Research Design in Dentistry	2
DENS 660 Interdisciplinary Care Conference*	0.5
DENS 699 Thesis Guidance	2

Total graduate credit hours required (minimum)	72.5
Semester total	14.5
ENDO 680 Clinical Endodontics	5
ENDO 656 Endodontic Current Literature Review	1
Compromised Patient	-
ENDO 654 Endodontic Management of the Medically	1
ENDO 650 Endodontic Topic Enterature Review ENDO 652 Endodontic Clinical Seminars	2
ENDO 530 Advanced Oral Pathology ENDO 650 Endodontic Topic Literature Review	2
	1
DENS 660 Interdisciplinary Care Conference* DENS 699 Thesis Guidance	0.5 2
Spring semester, year two	0.5
Semester total	16.5
	-
ENDO 680 Clinical Endodontics	5
ENDO 656 Endodontic Current Literature Review	1
ENDO 652 Endodontic Clinical Seminars	2
ENDO 650 Endodontic Topic Literature Review	2
ENDO 560 Endodontic Therapy Lectures	2
ENDO 532 Management of Medical Emergencies in the Dental Office	1
DENS 699 Thesis Guidance ENDO 522 Management of Medical Emergencies in the Dontal	2
DENS 600 Thesis Guidanea	***
DENS 550 Update in Practice Administration DENS 660 Interdisciplinary Care Conference*	0.5
Fall semester, year two DENS 550 Undate in Practice Administration	1
Semester total	21.5
ENDO 680 Clinical Endodontics	5
ENDO 656 Endodontic Current Literature Review	1
ENDO 654 Endodontic Management of the Medically Compromised Patient	1
	_
ENDO 650 Endodontic Topic Enterature Review ENDO 652 Endodontic Clinical Seminars	2
ENDO 650 Endodontic Topic Literature Review	2
ENDO 550 Advanced Oral Fathology ENDO 560 Endodontic Therapy Lectures	2
ENDO 530 Advanced Oral Pathology	1
DENS 700 Basic Sciences and Graduate Dentistry	3
DENS 699 Thesis Guidance	0.5
DENS 580 Biostatistics and Research Design in Dentistry DENS 660 Interdisciplinary Care Conference*	2 0.5
Spring semester, year one	2
Semester total	20
ENDO 680 Clinical Endodontics	5
ENDO 656 Endodontic Current Literature Review	1
ENDO 652 Endodontic Clinical Seminars	2
ENDO 650 Endodontic Topic Literature Review	2
ENDO 560 Endodontic Therapy Lectures	2
Office	
ENDO 532 Management of Medical Emergencies in the Dental	1
ENDO 522 Introduction: Specialty of Endodontics	2.5

* Students register for .5 credits for both fall and spring semesters for both years of the program. They receive a continuing grade in the fall semester and a pass/fail grade at the end of the spring semester for the entire year. Students take the class four times for .5 credits each time, but they are only graded for two one-credit classes.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

For a current copy of the program handbook, contact the VCU School of Dentistry's Department of Endodontics.

Dentistry, Master of Science in (M.S.D.) with a concentration in orthodontics

Program accreditation

Commission on Dental Accreditation of the American Dental Association

Graduate program director

Bhavna Shroff, D.D.S., M.Dent.Sc., M.P.A.

bshroff@vcu.edu

(804) 828-9326

Additional contact

Darlene D. Johnson

Executive administrative assistant

ddjohnso@vcu.edu

(804) 828-9326

Program website: orthodontics.vcu.edu/postgrad

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Dentistry, Doctor of Dental Surgery (D.D.S.)

Dentistry, Doctor of Dental Surgery (D.D.S.)/Master of Science (M.S.)

[combined]

Dentistry, Doctor of Dental Surgery (D.D.S.)/Doctor of Philosophy (Ph.D.) [combined]

Dentistry, Doctor of Dental Surgery (D.D.S.), advanced dental education

Dentistry, Master of Science in (M.S.D.) with a concentration in endodontics

Dentistry, Master of Science in (M.S.D.) with a concentration in pediatric dentistry Dentistry, Master of Science in (M.S.D.) with a concentration in periodontics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Dentistry, Master of Science in (M.S.D.) with a concentration in orthodontics			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
M.S.D.	Fall (Jul 1 start date)	Sep 2	NBDE, GRE, TOEFL or IELTS if international

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Agreement to participate in the Postdoctoral Dental Matching Program
- Agreement to participate in the American Dental Education Association Postdoctoral Application Support Service
- 3. Graduation or anticipated graduation from dental school
- Eligibility to obtain a Virginia temporary resident's license from the Virginia Board of Dentistry
- 5. Completion of National Boards Part I and anticipated completion of Part II
- 6. Completion of GRE
- Completion of TOEFL or IELTS (for students whose native language is not English)
- 8. Application to the orthodontic graduate program through the ADEA PASS program. The PASS application should include the following items:
 - a. Online application form
 - b. Essay/personal statement: Please tell us about your personal history that led you to apply for an educational program in orthodontics. Include your plans for the future and any factors you believe are important for us to know in reviewing your application. Please limit your comments to one page.
 - c. Curriculum vitae/resume: Include a curriculum vitae/resume to give us more information about yourself. Include your education and work experiences, awards, honors, research experiences, and personal interests
 - Undergraduate college transcripts: Include official transcripts from all colleges or universities you have attended before dental school.
 - e. Dental school transcripts
 - f. Institution Evaluation Form (completed by the dean of your dental school)
 - Personal potential index report (evaluation of different criteria by three to five evaluators compiled into a single report)
 - h. Professional evaluations: two letters of recommendation from individuals who can personally attest to your professional and personal qualities (the program director's letter can count as one). A letter from the chair of orthodontics is not required, but may be included if the chair has personal knowledge of your skills. Note: Professional evaluations are listed as optional for PASS; however, they must be submitted for VCU's program.
- The following supplementary items are to be submitted directly to the VCU Department of Orthodontics:
 - a. Application cover page
 - Application fee of \$50 (U.S. dollars drawn on a U.S. bank) made payable to VCU (Application fee is nonrefundable.)
 - c. Official transcripts from all colleges or universities you have attended after dental school, if any (If you have attended a program without a transcript, such as a residency, we will need a letter from your program director documenting the experience.)
 - d. Additional letters of recommendation may be submitted if you feel they would be beneficial to your application (optional).
 - e. National Board scores: Have an original score report sent directly to the Department of Orthodontics from the National Board office in addition to enclosing a copy in your supplementary materials package/envelope. If you have taken other exams (or if you wish to add to your file), you may send any item of this type for our consideration. The National

Board scores, Part I, are required (even if you are a graduate of a foreign school) no exceptions.

- f. GRE scores: Have an original score report sent directly to the Department of Orthodontics from the Educational Testing Service office in addition to enclosing a copy in your supplementary materials package/envelope. The GRE scores are required (even if you are a graduate of a foreign school) no exceptions.
- g. TOEFL or IELTS scores are required for students whose native language is not English. These scores are not required if you went to dental school or graduate school in an English-speaking environment (U.S.A., Canada, Australia or Great Britain, etc.). Foreign dental school graduates: Graduation from our orthodontic program qualifies you to apply for a dental license in the commonwealth of Virginia; however, other regulations apply. For example, after graduation from our program, you will be required to take and pass a regional testing agency dental examination.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Department of Orthodontics offers a 24-month advanced education Master of Science in Dentistry program. The program teaches the latest in clinical care in an environment modeled after private orthodontic practice. The curriculum is composed of seminars and small-group instruction with emphasis on critical thinking and problem-solving. Contemporary concepts of orthodontic treatment are reviewed for substantive and scientific content. Also included are regularly scheduled orthognathic surgery conferences and seminars with other dental and medical specialists.

The postgraduate program is designed to develop skilled practitioners who are prepared to grow with the future and manage busy orthodontic practices. Our goal is not only to familiarize future orthodontists with contemporary techniques but also to teach them how to interpret cutting-edge scientific information and use it to approach clinical challenges logically and practically.

The program's clinical experience consists of a wide variety of orthodontic patients, including complex cases requiring orthognathic surgery and patients with facial clefts and other craniofacial abnormalities. An original research experience is an integral part of our program with each project intended to produce results suitable for publication in a nationally circulated orthodontic journal. The successful completion of a research project is required. All senior residents present their research at the Virginia Association of Orthodontists' meeting. The program makes students educationally qualified to take the written portion of the American Board of Orthodontics examination in the senior year. Residents are required to pass the written portion of the examination prior to graduation and are encouraged to continue and complete the board certification process. This exam is given prior to the American Association of Orthodontists' meeting.

Students completing the program earn a specialty Certificate in Orthodontics and Master of Science in Dentistry degree. Students must complete the requirements for the master's degree prior to being awarded the specialty certificate.

The program is accredited by the Commission on Dental Accreditation of the American Dental Association.

Student learning outcomes

Graduates of this program will:

- Formulate and conduct a relevant research project as evidenced in the completion of a master's thesis in a publishable format for a refereed journal
- 2. Be equipped to practice evidence-based orthodontics
- Have demonstrated the ability to communicate with patients, colleagues in general dentistry, dental specialties, medicine and other health care practitioners in the provision of ethical and informed patient care
- 4. Be proficient in:
 - Diagnosis, treatment planning, treatment, retention and prognosis of dental malocclusions and
 - b. dento-facial disharmony
 - c. Outcome assessment
 - d. Diagnostic imaging technologies
 - e. Management of patients with craniofacial deformities
 - f. Management of combined orthodontic and surgical cases
 - g. Use of various fixed and removable appliances, aligner technology
 - h. Use of temporary anchorage devices and soft tissue laser
 - i. Use of digital technology for records taking and treatments with aligners
- Be eligible to sit for the Diplomate Boards of the American Board of Orthodontists

Degree requirements

- The 24-month certificate program in orthodontics begins July 1 with two
 weeks of classes to familiarize students with concepts of growth and
 development, diagnosis and treatment planning, and basic biomechanical
 principles. First-year residents see new patients in the clinic in mid-July. In
 August, first-year residents begin a full clinic schedule that includes a
 morning and afternoon clinic session on most days.
- Didactic course work in the department consists primarily of small-group seminar sessions for an average of two hours each day.
- 3. Clinical work simulates a private-practice environment. Each team consists of one junior and one senior orthodontic resident and a dental assistant whose time is dedicated to that team. The orthodontic clinic has its own business manager, practice manager and receptionist. Patient records are computerized, and billing, scheduling and record storage are accomplished using a commercial orthodontic office management system. The objective is to maximize clinical efficiency so residents fully develop the thought processes necessary to master orthodontic principles and treatment techniques. Graduates are prepared to enter into a successful and busy orthodontic practice.

Curriculum requirements

Courses	Credit hours
DENS 550 Update in Practice Administration	1
DENS 580 Biostatistics and Research Design in Dentistry (2 credits taken twice)	4
DENS 630 Orthodontic-Periodontic-AEGD Conference (.5 credits taken four times)*	2
DENS 660 Interdisciplinary Care Conference (.5 credits taken four times)*	2
DENS 699.003 Thesis Guidance (2 credits taken four times)	8
DENS 700 Basic Sciences and Graduate Dentistry	3
ORTH 532 Biomechanics: Theoretical Basis for Tooth Movement	1

ORTH 650 Literature Review (2 credits taken four times)	8
ORTH 652 Growth and Development (2 credits taken four	8
times)	
ORTH 654 Orthodontic Diagnosis and Treatment Planning (2	8
credits taken four times)	
ORTH 656 Current Literature (2 credits taken four times)	8
ORTH 658 Analysis of Orthodontic Treatment (1.5 credits taken	6
four times)	
ORTH 660 Orthognathic Conference (1 credit taken four times)	4
ORTH 662 Craniofacial Anomalies (1 credit taken four times)	4
ORTH 664 Orthodontic Interactions with Generalists and Other	8
Dental Specialties (2 credits taken four times)	
ORTH 680 Orthodontic Clinic (6.5 credits taken four times)	26
Total graduate credit hours required (minimum)	101
Plan of study	
Fall semester, year one	
DENS 580 Biostatistics and Research Design in Dentistry	2
DENS 630 Orthodontic-Periodontic-AEGD Conference*	0.5
DENS 660 Interdisciplinary Care Conference*	0.5
DENS 699.003 Thesis Guidance	2
ORTH 532 Biomechanics: Theoretical Basis of Tooth Movement	1
ORTH 650 Literature Review	2
ORTH 652 Growth and Development	2
ORTH 654 Orthodontic Diagnosis and Treatment Planning	2
ORTH 656 Current Literature	2
ORTH 658 Analysis of Orthodontic Treatment	1.5
ORTH 660 Orthognathic Conference	1
ORTH 662 Craniofacial Anomalies	1
ORTH 664 Ortho Interactions with Generalists and Other Dental	2
Specialties	_
ORTH 680 Orthodontic Clinic	6.5
Semester total	26
Spring semester, year one	
DENS 580 Biostatistics and Research Design in Dentistry	2
DENS 630 Orthodontic-Periodontic-AEGD Conference*	0.5
DENS 660 Interdisciplinary Care Conference*	0.5
DENS 699.003 Thesis Guidance	2
DENS 700 Basic Sciences & Graduate Dentistry	3
ORTH 650 Literature Review	2
ORTH 652 Growth and Development	2
ORTH 654 Orthodontic Diagnosis and Treatment Planning	2
•	
ORTH 656 Current Literature	
ODTH (50 Augloria of Orthodoxia Transfer out	2
ORTH 658 Analysis of Orthodontic Treatment	1.5
ORTH 660 Orthognathic Conference	1.5 1
ORTH 660 Orthognathic Conference ORTH 662 Craniofacial Anomalies	1.5 1 1
ORTH 660 Orthognathic Conference ORTH 662 Craniofacial Anomalies ORTH 664 Orthodontic Interactions with Generalists and Other	1.5 1
ORTH 660 Orthognathic Conference ORTH 662 Craniofacial Anomalies ORTH 664 Orthodontic Interactions with Generalists and Other Dental Specialties	1.5 1 1 2
ORTH 660 Orthognathic Conference ORTH 662 Craniofacial Anomalies ORTH 664 Orthodontic Interactions with Generalists and Other	1.5 1 1
ORTH 660 Orthognathic Conference ORTH 662 Craniofacial Anomalies ORTH 664 Orthodontic Interactions with Generalists and Other Dental Specialties	1.5 1 1 2
ORTH 660 Orthognathic Conference ORTH 662 Craniofacial Anomalies ORTH 664 Orthodontic Interactions with Generalists and Other Dental Specialties ORTH 680 Orthodontic Clinic Semester total Fall semester, year two	1.5 1 1 2 6.5 28
ORTH 660 Orthognathic Conference ORTH 662 Craniofacial Anomalies ORTH 664 Orthodontic Interactions with Generalists and Other Dental Specialties ORTH 680 Orthodontic Clinic Semester total Fall semester, year two DENS 550 Update in Practice Administration	1.5 1 1 2 6.5 28
ORTH 660 Orthognathic Conference ORTH 662 Craniofacial Anomalies ORTH 664 Orthodontic Interactions with Generalists and Other Dental Specialties ORTH 680 Orthodontic Clinic Semester total Fall semester, year two DENS 550 Update in Practice Administration DENS 630 Orthodontic-Periodontic-AEGD Conference*	1.5 1 1 2 6.5 28 1 0.5
ORTH 660 Orthognathic Conference ORTH 662 Craniofacial Anomalies ORTH 664 Orthodontic Interactions with Generalists and Other Dental Specialties ORTH 680 Orthodontic Clinic Semester total Fall semester, year two DENS 550 Update in Practice Administration DENS 630 Orthodontic-Periodontic-AEGD Conference* DENS 660 Interdisciplinary Care Conference*	1.5 1 1 2 6.5 28 1 0.5 0.5
ORTH 660 Orthognathic Conference ORTH 662 Craniofacial Anomalies ORTH 664 Orthodontic Interactions with Generalists and Other Dental Specialties ORTH 680 Orthodontic Clinic Semester total Fall semester, year two DENS 550 Update in Practice Administration DENS 630 Orthodontic-Periodontic-AEGD Conference*	1.5 1 1 2 6.5 28 1 0.5
ORTH 660 Orthognathic Conference ORTH 662 Craniofacial Anomalies ORTH 664 Orthodontic Interactions with Generalists and Other Dental Specialties ORTH 680 Orthodontic Clinic Semester total Fall semester, year two DENS 550 Update in Practice Administration DENS 630 Orthodontic-Periodontic-AEGD Conference* DENS 660 Interdisciplinary Care Conference*	1.5 1 1 2 6.5 28 1 0.5 0.5
ORTH 660 Orthognathic Conference ORTH 662 Craniofacial Anomalies ORTH 664 Orthodontic Interactions with Generalists and Other Dental Specialties ORTH 680 Orthodontic Clinic Semester total Fall semester, year two DENS 550 Update in Practice Administration DENS 630 Orthodontic-Periodontic-AEGD Conference* DENS 660 Interdisciplinary Care Conference* DENS 699.003 Thesis Guidance	1.5 1 1 2 6.5 28 1 0.5 0.5 2

ORTH 656 Current Literature	2
ORTH 658 Analysis of Orthodontic Treatment	1.5
ORTH 660 Orthognathic Conference	1
ORTH 662 Craniofacial Anomalies	1
ORTH 664 Orthodontic Interactions with Generalists and Other	2
Dental Specialties	
ORTH 680 Orthodontic Clinic	6.5
Semester total	24
Spring semester, year two	
DENS 630 Orthodontic-Periodontic-AEGD Conference*	0.5
DENS 660 Interdisciplinary Care Conference*	0.5
DENS 699.003 Thesis Guidance	2
ORTH 650 Literature Review	2
ORTH 652 Growth and Development	2
ORTH 654 Orthodontic Diagnosis and Treatment Planning	2
ORTH 656 Current Literature	2
ORTH 658 Analysis of Orthodontic Treatment	1.5
ORTH 660 Orthognathic Conference	1
ORTH 662 Craniofacial Anomalies	1
ORTH 664 Orthodontic Interactions with Generalists and Other	2
Dental Specialties	
ORTH 680 Orthodontic Clinic	6.5
Semester total	23
Total graduate credit hours required (minimum)	101

* Students register for .5 credits for both fall and spring semesters for both years of the program. They receive a continuing grade in the fall semester and a pass/fail grade at the end of the spring semester for the entire year. Students take the class four times for .5 credits each time, but they are only graded for two one-credit classes.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Dentistry, Master of Science in (M.S.D.) with a concentration in pediatric dentistry

Program accreditation:

Commission on Dental Accreditation of the American Dental Association

Graduate program director

Patrice B. Wunsch, D.D.S., M.S.

Associate professor

pbwunsch@vcu.edu

(804) 827-2698

Additional contact

Kelly J. Campbell

Administrative assistant

pedsdent@vcu.edu

(804) 828-1790

Program website: pediatricdentistry.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Dentistry, Doctor of Dental Surgery (D.D.S.)

Dentistry, Doctor of Dental Surgery (D.D.S.)/Master of Science (M.S.)

Dentistry, Doctor of Dental Surgery (D.D.S.)/Doctor of Philosophy (Ph.D.) [combined]

Dentistry, Doctor of Dental Surgery (D.D.S.), advanced dental education Dentistry, Master of Science in (M.S.D.) with a concentration in endodontics Dentistry, Master of Science in (M.S.D.) with a concentration in orthodontics Dentistry, Master of Science in (M.S.D.) with a concentration in periodontics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Dentistry, Master of Science in (M.S.D.) with a concentration in pediatric dentistry			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.S.D.	Fall (Jul 1 start date)	Sep 15	National Dental
	· · · · · · · · · · · · · · · · · · ·	•	Boards, Part 1 and 2
			GRE

Special requirements:

Applicants from countries where English is not the primary and official language must complete the TOEFL.

Upon acceptance in the specialty certificate program in pediatric dentistry, applicants must apply to the Graduate School for the M.S.D.

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- D.D.S. or D.M.D. from an American Dental Association-accredited dental
- Successful completion of Part I of the National Dental Board Exam at the time of application and completion of Part II by the time of matriculation
- Minimum grade point average of 3.0 (4.0 scale) or equivalent
- Ranking in the top 50 percent of the class of the dental school attended
- Personal interview
- An externship in pediatric dentistry of at least one week in duration while attending dental school (highly encouraged)
- Participation status with American Dental Education Association Postdoctoral Application Support Service and the Postdoctoral Dental Matching Program
- Agreement to participate in the Postdoctoral Dental Matching Program
- Agreement to participate in the ADEA PASS
- Graduation or anticipated graduation from a CODA-accredited U.S. or Canadian dental school

- 11. Eligibility to obtain a Virginia Temporary Resident's License from the Virginia Board of Dentistry
- Completion of GRE
- Completion of TOEFL or IELTS for students whose native language is not
- 14. Application to the pediatric graduate program is accepted through the ADEA PASS program. The PASS application should include the following items:
 - a. Online application form
 - Essay/personal statement: Please tell us about your personal history that led you to apply for an educational program in pediatrics. Include your plans for the future and any factors you believe are important for us to know in reviewing your application. Please limit your comments to one
 - Curriculum vitae/resume: Include a curriculum vitae/resume to give us more information about yourself. Include your education and work experiences, awards, honors, research experiences, and personal interests.
 - d. Undergraduate college transcripts: Include official transcripts from all colleges or universities you attended before dental school.
 - e. Dental school transcripts
 - Institution Evaluation Form (completed by the dean of your dental
 - Personal potential index report (evaluation of different criteria by three to five evaluators compiled into a single report)
 - Professional evaluations: two letters of recommendation from individuals who can personally attest to your professional and personal qualities (the program director's letter can count as one). A letter from the chair of pediatrics is not required, but may be included if the chair has personal knowledge of your skills. Note: Professional evaluations are listed as optional for PASS; however, they must be submitted for VCU's program.

Special admission requirements

International applicants must complete the following requirements and documentation. Permanent U.S. residents and international students are advised to contact VCU international admissions to ensure eligibility.

- D.D.S. or D.M.D. from an international dental school program
- 2. Provide all information in items 1 through 7 above
- Test of English as a Foreign Language (minimum score of 600 on paperbased test and 100 on Internet-based test)
- International English Language Testing System (score of 6.5 or greater acceptable; test must be taken within two years of application date)

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

> General academic regulations for all graduate students in all graduate programs at VCU



Program goals and objectives

The didactic requirements of the Master of Science in Dentistry are combined with the goals of the M.S.D. program to provide the student with a strong clinical background that is supported by a strong background in research methodology.

Program goals

- To provide an academic environment for inquiry in which expertise and knowledge in basic sciences and clinical pediatric dentistry can be achieved
- To provide a sound background in medicine as it applies to the pediatric/ adolescent patient and to patients with special health care needs
- 3. To provide a sound background in oral pathology
- To be able to interpret, critique and apply literature associated with the field of pediatric dentistry
- To develop sound diagnostic, clinical, nonsurgical and surgical skills in the clinic and in the operating room
- To provide didactic instruction and clinical training in the area of nonpharmacologic and pharmacologic behavior management
- To provide instruction and training in growth and development to include clinical interceptive orthodontic care
- To provide methods of pain and anxiety control, including nitrous oxide and oral conscious sedation
- To provide an environment for the interpretation and implementation of research
- Enable successful completion of the American Board of Pediatric Dentistry exam
- 11. To develop sound lifelong didactic and clinical learning skills
- To provide specialists in pediatric dentistry for community health care, professional service and dental education

Program objectives

- To be exposed to the basic sciences and be able to apply concepts to clinical pediatric dentistry
- 2. To be able to critically critique and interpret the old and new literature
- To have an understanding of oral pathology and medicine as it applies to management of the pediatric/adolescent patient and patients with special health care needs
- To have residents become exposed to and proficient in multiple nonsurgical and surgical treatment modalities to include treatment of patients under general anesthesia
- 5. To become competent in diagnosis and treatment planning
- 6. To obtain competency and certification in moderate conscious sedation
- 7. To complete research, M.S.D. and prepare a paper for presentation and publication
- To prepare the student to successfully complete Part I and II of the ABPD examination
- 9. To develop communication and presentation skills and lifelong learners

Student learning outcomes

Graduates of this program will be competent in:

Knowledge - concepts, facts and information

- Knowledge and skills in the areas of pediatric medicine and oral medicine, as well as the delivery of dental care and oral surgery for compromised children and adolescents
- 2. In-depth knowledge and skills in the use of pharmacologic and nonpharmacologic behavior management techniques
- 3. Knowledge of hospital protocol, policies, rules, regulations and the ability to treat pediatric dental patients in the hospital environment

- 4. Ability to evaluate the dental literature and its research findings to the benefit of patients and to engage in scholarly activity which results in completion of a master's degree thesis suitable for publication
- Knowledge of preventive and corrective dental procedures relating to general and oral health and to growth and development of the stomatognathic system
- Knowledge and skill in oral and maxillofacial radiology specific to the needs of the child and adolescent
- Preparation for managing a contemporary pediatric dental practice relative to practice administration, efficient auxiliary utilization and marketing
- Understanding of the biomedical sciences related to the practice of contemporary pediatric dentistry: biostatistics/epidemiology, pharmacology, microbiology, embryology, genetics, anatomy and oral and medical pathology
- In-depth knowledge of the physical, psychological and social development of children
- In-depth knowledge of oral and perioral lesions and anomalies in the pediatric dental patient
- In-depth knowledge of the management of dental and medical emergencies in the dental setting
- 12. Understanding of normal and abnormal language development
- 13. Understanding of jurisprudence, risk management and biomedical ethics
- Understanding office and practice management including the use of contemporary technologies

Clinical competency

- Ability to appropriately manage and guide the behavior of the child patient to accept needed treatment and to provide advice or guidance to the parent to enhance the child's acceptance
- Expertise in managing and rendering optimal dental care for the medically, emotionally or physically challenged pediatric dental patient
- Ability to perform evaluations of the physical status of children and adolescents
- Ability to transform didactic/learned information into appropriate clinical situations
- Skill in the use of pharmacologic and nonpharmacologic methods for the comprehensive control of pain and anxiety
- Ability to recognize, refer and treat children who have sustained abuse and neglect
- 7. Expertise in dental surgical procedures for the restoration of the dentition
- Skill/dexterity in performing procedures of periodontal, mucocutaneous and associated hard tissues of the oral-maxillofacial region, including in-depth knowledge of biopsy and adjunctive diagnostic tests
- 9. Appropriate management of orofacial injuries

Diagnostic skills

- 1. Ability to recognize the early signs of child abuse and neglect
- 2. Ability to diagnose dental trauma
- Skill in the diagnosis, prevention and treatment planning of pediatric disease in the primary and permanent dentition and periodontal, mucocutaneous and associated hard tissues of the oral-maxillofacial region
- 4. Application and understanding of patient monitoring

Communication skills

- Competence in the skills required to instruct and motivate children and their caretakers in methods of achieving and maintaining optimum oral health
- 2. Ability to prepare patients and caretakers for procedures
- Ability to interact meaningfully with dental and nondental health care providers
- Ability to work cooperatively with consultants and clinicians of other specialties and health-related fields

Organizational skills and documentation

- Coordination of tasks such that diagnosis, case analysis, treatment planning and clinical management of oral-facial health problems of the pediatric dental patient occur in a logical, efficient manner
- Ability to present an organized treatment plan to the patient, parent, attending and front desk
- 3. Ability to manage time and tasks and to work effectively with people

Research

Courses

- 1. Coordination and implementation of a research project
- Successful completion of a research project, thesis preparation and thesis defense

Degree requirements

In addition to general VCU Graduate School graduation requirements, a cumulative GPA of 3.0 must be maintained. Students must receive a minimum grade of B for all required courses. Students will take written and oral examinations and must obtain a minimum grade of B or a passing grade. If either is not obtained then the examination must be retaken. For research the student must have a thesis defense and present a poster by mid-April of their second year. Extensions may be approved but at the students own expense.

Credit hours

Curriculum requirements

DENS 550 Update in Practice Administration	1
DENS 580 Biostatistics and Research Design in Dentistry (2	4
credits taken twice)	
DENS 660 Interdisciplinary Care Conference (.5 credit taken	2
four times)*	
DENS 699 Thesis Guidance (2 credits taken four times)	8
DENS 700 Basic Sciences and Graduate Dentistry	3
ORTH 620 Orthodontic Clinic for Non-orthodontic Graduate Students (1 credit taken four times)	4
PEDD 510 Pediatric Advanced Life Support	1
PEDD 511 General Anesthesia Rotation	1.5
PEDD 514 Introduction to Pediatric Dentistry	2
PEDD 572 Pediatric Dental Emergency Service (1 credit taken	2
twice)	2
PEDD 612 Seminar Series: Pediatric Dentistry and Medicine (2	8
credits taken four times)	
PEDD 620 Pediatric Medicine Rotation	1.5
PEDD 640 Clinical Teaching (1 credit taken four times)	4
PEDD 650 Literature Review (2 credits taken four times)	8
PEDD 654 Treatment Planning Seminar (2 credits taken four	8
times)	
PEDD 656 Current Literature Review (.5 credit taken four times)	2
PEDD 680 Pediatric Dental Clinic (4 credits taken four times)	16
Total graduate credit hours required (minimum)	76
Plan of study	
Fall semester, first year	
DENS 580 Biostatistics and Research Design in Dentistry	2
DENS 660 Interdisciplinary Care Conference*	0.5
DENS 699 Thesis Guidance	2
ORTH 620 Orthodontic Clinic for Non-orthodontic Graduate	1
Students	
PEDD 510 Pediatric Advanced Life Support	1
PEDD 514 Introduction to Pediatric Dentistry	2
PEDD 572 Pediatric Dental Emergency Service	1
PEDD 612 Seminar Series: Pediatric Dentistry and Medicine	2
PEDD 640 Clinical Teaching	1
PEDD 650 Literature Review	2
PEDD 654 Treatment Planning Seminar	2
PEDD 656 Current Literature Review	.5

PEDD 680 Pediatric Dental Clinic	4
1 EDD 000 Tediau ic Dentai Chine	4
Semester total	21
Spring semester, first year	
DENS 580 Biostatistics and Research Design in Dentistry	2
DENS 660 Interdisciplinary Care Conference*	0.5
DENS 699 Thesis Guidance	2
DENS 700 Basic Sciences and Graduate Dentistry	3
ORTH 620 Orthodontic Clinic for Non-orthodontic Graduate Students	1
PEDD 511 General Anesthesia Rotation	1.5
PEDD 572 Pediatric Dental Emergency Service	1
PEDD 612 Seminar Series: Pediatric Dentistry and Medicine	2
PEDD 640 Clinical Teaching	1
PEDD 650 Literature Review	2
PEDD 654 Treatment Planning Seminar	2
PEDD 656 Current Literature Review	0.5
PEDD 680 Pediatric Dental Clinic	4
Semester total	22.5
Fall semester, second year	
DENS 550 Update in Practice Administration	1
DENS 660 Interdisciplinary Care Conference*	0.5
DENS 699 Thesis Guidance	2
ORTH 620 Orthodontic Clinic for Non-orthodontic Graduate	1
Student	
PEDD 612 Seminar Series: Pediatric Dentistry and Medicine	2
PEDD 620 Pediatric Medicine Rotation	1.5
PEDD 640 Clinical Teaching	1
PEDD 650 Literature Review	2
PEDD 654 Treatment Planning Seminar	2
PEDD 656 Current Literature Review	0.5
PEDD 680 Pediatric Dental Clinic	4
Semester total	17.5
Spring semester, second year	
DENS 660 Interdisciplinary Care Conference*	0.5
DENS 699 Thesis Guidance	2
ORTH 620 Orthodontic Clinic for Non-orthodontic Graduate	1
Students PEDD 612 Seminar Series, Redictric Dentistry and Medicine	2
PEDD 612 Seminar Series: Pediatric Dentistry and Medicine PEDD 640 Clinical Teaching	1
PEDD 650 Literature Review	
PEDD 650 Elterature Review PEDD 654 Treatment Planning Seminar	2 2
PEDD 656 Current Literature Review	0.5
PEDD 656 Current Elterature Review PEDD 680 Pediatric Dental Clinic	4
Semester total	15
Total graduate credit hours required (minimum)	76
* Students register for .5 credits for both fall and spring semesters for b	oth yea

* Students register for .5 credits for both fall and spring semesters for both years of the program. They receive a continuing grade in the fall semester and a pass/fail grade at the end of the spring semester for the entire year. Students take the class four times for .5 credits each time, but they are only graded for two one-credit classes.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the

student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Dentistry, Master of Science in (M.S.D.) with a concentration in periodontics

Program accreditation

Commission on Dental Accreditation of the American Dental Association

Graduate program director

Thomas C. Waldrop, D.D.S., M.S. Professor and director, graduate periodontics tcwaldro@vcu.edu (804) 828-6121

Additional contact

Faye T. Miles Administrative assistant ftmiles@vcu.edu (804) 828-4867 Fax: (804) 828-0657

Program website: periodontics.vcu.edu/gradprogram

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Dentistry, Doctor of Dental Surgery (D.D.S.)

Dentistry, Doctor of Dental Surgery (D.D.S.)/Master of Science (M.S.) [combined]

Dentistry, Doctor of Dental Surgery (D.D.S.)/Doctor of Philosophy (Ph.D.) [combined]

Dentistry, Doctor of Dental Surgery (D.D.S.), advanced dental education Dentistry, Master of Science in (M.S.D.) with a concentration in endodontics

Dentistry, Master of Science in (M.S.D.) with a concentration in orthodontics

Dentistry, Master of Science in (M.S.D.) with a concentration in pediatric dentistry

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Dentistry, Master of Science in (M.S.D.) with a concentration in periodontics			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.S.D.	Fall (Jul 1 start date)	Jul 1, a year previous	National Dental
		to entry year	Boards, Part 1 and 2

Special requirements:

Applicants from countries where English is not the primary and official language must complete the TOEFL with a score of 100 or higher.

International applicants must include an external credential evaluation of all international transcripts to complete the application. WES, ECE and AACRAO are some of the recommended NACES-approved providers.

Upon acceptance in the specialty certificate program in periodontics, applicants must apply to the Graduate School for the M.S.D.

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. D.D.S. or D.M.D. degree from U.S. or Canadian dental school
- 2. Part I of the National Dental Board at the time of application and Part II by time of matriculation (official report or certified copy)
- Transcripts in a sealed envelope from each college/university/dental program attended
- GPA/class ranking forwarded from the dean's office of the dental school attended
- 5. Three letters of recommendation addressed to the director of graduate periodontics
- 6. Curriculum vitae and personal statement
- 7. Interview upon request from program director

Special admission requirements

International applicants must complete the following requirements and documentation. Permanent U.S. residents and international students are advised to contact VCU international admissions to ensure eligibility.

- 1. D.D.S. or D.M.D. from an international dental school program
- 2. Provide all information in items 3 through 7 above
- An external credential evaluation for international applicants of all international transcripts to complete the application (WES, ECE and AACRAO are some of the recommended NACES-approved providers.)
- TOEFL with a minimum score of 100 for applicants from countries where English is not the primary and official language

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals and objectives

The didactic requirements of the M.S.D. are combined with the goals of the M.S.D. program to provide the student with a strong clinical background which is supported by a strong background in research methodology.

Program goals

- To provide an academic environment for inquiry in which expertise and knowledge in basic sciences and clinical periodontics can be achieved
- To provide a sound background in medicine as it applies to the periodontal patient
- 3. To provide a sound background in oral pathology
- 4. To be able to interpret, critique and apply periodontal and associated literature
- 5. To develop sound diagnostic, clinical, nonsurgical and surgical skills
- To provide didactic instruction and clinical training in the area of dental implants
- To provide methods of pain and anxiety control, including ADA certification in intravenous conscious sedation
- To provide an environment for the interpretation and implementation of research
- 9. Enable successful completion of the American Board of Periodontology
- 10. To develop sound lifelong didactic and clinical learning skills
- To provide specialists in periodontics for community health care, professional service and dental education

Program objectives

- To be exposed to the basic sciences and be able to apply concepts to clinical periodontics
- 2. To be able to critically critique and interpret the old and new literature
- To have an understanding of oral pathology and medicine as it applies to management of the periodontal patient
- 4. To have residents become exposed to and proficient in multiple nonsurgical and surgical treatment modalities
- To become competent in the treatment planning, site preparation, surgical placement and maintenance of dental implants
- 6. To obtain competency and certification in enteral and parental conscious
- To complete research, M.S.D. and prepare a paper for presentation and publication
- 8. To prepare the student to successfully complete Part I and II of the American Board of Periodontology examination
- 9. To develop communication and presentation skills and lifelong learners

Student learning outcomes

- To provide an academic environment for inquiry in which expertise and knowledge in basic sciences and clinical periodontics are achieved
- To provide a sound background in medicine as it applies to the periodontal patient
- To provide a sound background in oral pathology with a100 percent completion of oral pathology rotation
- 4. To be able to interpret, critique and apply periodontal and associated literature with a 100 percent completion of periodontal courses measured
- 5. To develop sound diagnostic clinic, nonsurgical and surgical skills
- To provide didactic instruction and clinical training in the area of dental implants
- To provide methods of pain and anxiety control, including ADA certification in intravenous conscious sedation

- To provide an environment for the interpretation and implementation of research with a100 percent successful completion of biostatistics and research design in dentistry course
- Enable successful completion of the American Board of Periodontology written and oral examinations
- 10. To develop sound lifelong didactic and clinical learning skills
- To provide specialists in periodontics for community health care, professional service and dental education with a 100 percent graduate participation in specialty clinical practice

Degree requirements

In addition to general VCU Graduate School graduation requirements, a cumulative GPA of 3.0 must be maintained. Students must receive a minimum grade of B for all required courses. Students will take written and oral examinations and must obtain a minimum grade of B or a passing grade. If either is not obtained, then the examination must be retaken. For research the student must have a thesis defense, present a poster and prepare a manuscript for submission by May 1 of the third year. Extensions may be approved, but students are responsible for the expense.

Curriculum requirements

Curriculum requirements	
Courses	Credit hours
DENS 550 Update in Practice Administration	1
DENS 580 Biostatistics and Research Design in Dentistry (2 credits taken twice)	4
DENS 630 Orthodontic-Periodontic-AEGD Conference (.5 credits taken six times)*	3
DENS 660 Interdisciplinary Care Conference (.5 credits taken five times)*	2.5
DENS 699.004 Thesis Guidance (1.5 credits taken six times)	9
DENS 700 Basic Sciences and Graduate Dentistry	3
PERI 508 Physical Diagnosis	2
PERI 511 Anesthesiology Rotation	1.5
PERI 512 Conscious Sedation (2 credits taken twice)	4
PERI 514 Introduction to Periodontics	3
PERI 520 Principles of Periodontics (2 credits taken twice)	4
PERI 552 Implantology	1
PERI 619 Clinical Pathology Rotation	0.5
PERI 630 Medicine: Oral Medicine Seminar (1 credit taken six times)	6
PERI 650 Periodontal Literature Review (3 credits taken six times)	18
PERI 654 Treatment Plan: Case Presentations (1 credit taken six times)	6
PERI 656 Current Literature Review (4 credits taken six times	24
PERI 680 Clinical Periodontics (5 credits taken six times)	30
PERI 719 Specialty Practice Management (.5 credit taken twice)*	1
Total graduate credit hours required (minimum)	123.5
Plan of study	
Fall semester, year one	
DENS 580 Biostatistics and Research Design in Dentistry	2
DENS 630 Orthodontic-Periodontic-AEGD Conference*	0.5
DENS 660 Interdisciplinary Care Conference**	0.5
DENS 699.004 Thesis Guidance	1.5
PERI 508 Physical Diagnosis	2
PERI 512 Conscious Sedation	2
PERI 514 Introduction to Periodontics	3
PERI 520 Principles of Periodontics	2
PERI 552 Implantology	1
PERI 630 Medicine: Oral Medicine Seminar	1

16.5

PERI 650 Periodontal Literature Review PERI 654 Treatment Plan: Case Presentations PERI 656 Current Literature Review PERI 680 Clinical Periodontics	3 1 4 5
Semester total	28.5
Spring semester, year one DENS 580 Biostatistics and Research Design in Dentistry DENS 630 Orthodontic-Periodontic-AEGD Conference* DENS 660 Interdisciplinary Care Conference** DENS 699.004 Thesis Guidance DENS 700 Basic Sciences and Graduate Dentistry PERI 511 Anesthesiology Rotation PERI 512 Conscious Sedation PERI 520 Principles of Periodontics PERI 630 Medicine: Oral Medicine Seminar	2 0.5 0.5 1.5 3 1.5 2 2
PERI 650 Periodontal Literature Review PERI 654 Treatment Plan - Case Presentations PERI 656 Current Literature Review PERI 680 Clinical Periodontics	3 1 4 5
Semester total	27
Fall semester, year two DENS 630 Orthodontic-Periodontic-AEGD Conference* DENS 660 Interdisciplinary Care Conference** DENS 600.004 Thesis Guidance PERI 630 Medicine: Oral Medicine Seminar PERI 650 Periodontal Literature Review PERI 650 Periodontal Literature Review PERI 656 Current Literature Review PERI 680 Clinical Periodontics	0.5 0.5 1.5 1 3 1 4 5
Semester total	16.5
Spring semester, year two DENS 630 Orthodontic-Periodontic-AEGD Conference* DENS 660 Interdisciplinary Care Conference** DENS 699.004 Thesis Guidance PERI 619 Clinical Pathology Rotation PERI 630 Medicine: Oral Medicine Seminar PERI 650 Periodontal Literature Review PERI 654 Treatment Plan: Case Presentations PERI 656 Current Literature Review PERI 680 Clinical Periodontics	0.5 0.5 1.5 0.5 1 3 1 4 5
Semester total	17
Fall semester, year three DENS 550 Update in Practice Administration DENS 630 Orthodontic-Periodontic-AEGD Conference* DENS 660 Interdisciplinary Care Conference** DENS 699.004 Thesis Guidance PERI 630 Medicine-Oral Medicine Seminar PERI 650 Periodontal Literature Review PERI 654 Treatment Plan: Case Presentations PERI 656 Current Literature Review PERI 680 Clinical Periodontics PERI 719 Specialty Practice Management*	1 0.5 0.5 1.5 1 3 1 4 5
Semester total	18

Spring semester, year three

Semester total

DENS 630 Orthodontic-Periodontic-AEGD Conference*	0.5
DENS 699.004 Thesis Guidance	1.5
PERI 630 Medicine: Oral Medicine Seminar	1
PERI 650 Periodontal Literature Review	3
PERI 654 Treatment Plan: Case Presentations	1
PERI 656 Current Literature Review	4
PERI 680 Clinical Periodontics	5
PERI 719 Specialty Practice Management*	0.5

DENC (20 Outledoutle Doubledoutle AECD Conferences

Total graduate credit hours required (minimum) 123.5

* Students register for .5 credits for both fall and spring semesters for all years of the program. They receive a continuing grade in the fall semester and a pass/fail grade at the end of the spring semester for the entire year. Students take the class the requisite number of times for .5 credits each time, but they are only graded for a single one-credit class each year.

**For DENS 660, students register for .5 credits for both fall and spring semesters for the first two years of the program and for .5 credits for the fall semester of the third year of the program. They receive a continuing grade in the fall semester and a pass/fail grade at the end of the spring semester for the entire year of the first two years (which means they take the class four times for .5 credits each time, but they are only graded for two one-credit classes). Students receive the pass/fail grade on the final .5 credits at the end of the fall semester of the third year of the program, for a program total of 2.5 credits.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements





2014-15 Graduate and Professional Programs Bulletin

School of Education

The primary objective of the Virginia Commonwealth University School of Education is to prepare students for careers in education, government, health-related professions, recreation and research. All programs combine comprehensive studies in the liberal arts and sciences with professional preparation and concentration in specialized fields of study. Practical applications and field experiences are an integral part of each academic program. The School of Education is committed to preparing high-quality professionals for service in urban, suburban and rural areas.

Administration

1015 West Main Street P.O. Box 842020 Richmond, Virginia 23284-2020 (804) 828-3382 Fax: (804) 828-1323 www.soe.vcu.edu

Christine S. Walther-Thomas

Professor and Dean

Henry T. Clark III

Professor and Senior Associate Dean for Academic Affairs

Diane J. Simon

Associate Professor and Associate Dean for Student Affairs

Accreditation

Education (all degrees)

National Council for Accreditation of Teacher Education (initial licensure and advanced degrees for school personnel), the Virginia Department of Education and the Southern Association of Colleges and Schools.

Counselor education

Accredited by the Council on Accreditation of Counseling and Related Educational Programs

This accreditation applies to both the K-12 school counseling track and the college student development and counseling track.

The school holds membership in the American and Virginia Association of Colleges of Teacher Education and in the Holmes Partnership.

Values statement

The VCU School of Education is dedicated to the preparation of professional educators and clinicians, the ideals of academic scholarship, and the worthiness of service. Through our work in these areas, we recognize our responsibilities to students, university colleagues, the community at large, and professional organizations. While all of us share common values, the statements below intentionally allow for a variety of interpretations that may be influenced by our assignments, our experiences, and our philosophical principles within programs and across the School of Education.

The school demonstrates its belief in the value of high quality programs by:

- · Attracting high quality students.
- Being responsive to the external standards of accrediting and professional organizations.
- · Providing meaningful clinical placements.
- Continually evaluating, assessing and improving programs and services.

The school demonstrates its belief in the value of high quality teaching by:

- · Creating an environment that supports student success.
- Demonstrating a variety of effective teaching strategies, including technology integration, universal design for learning and student-centered instruction.
- Fostering curriculum development that ensures familiarity with best practice across all disciplines.

The school demonstrates its belief in the value of diversity by:

- Preparing students to work in culturally and linguistically diverse settings.
- Accommodating students with special learning needs.

- · Promoting a diverse student and faculty community.
- · Supporting intellectual curiosity.
- · Modeling and promoting social justice.

The school demonstrates its belief in the value of high quality scholarship and, in particular, the value of research culture by:

- Conducting relevant, high quality research that is responsive to the metropolitan community and contributes to the disciplines.
- Encouraging collaborative research with colleagues, practitioners and students.
- Supporting the creation, interpretation and dissemination of knowledge.
- · Integrating current research into teaching.

The school demonstrates its belief in the value of collaboration and partnerships by:

- Serving as a resource for the development of policy, curriculum, instructional
 practice and professional standards.
- Providing leadership and professional outreach to organizations, the university and the community at large.
- Maintaining partnerships and shared responsibility for professional preparation.

The school demonstrates its belief in the value of critical reflection by:

- Observing ethical practice and professional honesty.
- Encouraging students to exhibit dispositions consistent with accepted professional practice.
- · Fostering a trusting, safe community of scholars.
- · Engaging in ongoing professional development.
- · Examining professional practices.

Educator as critically reflective practitioner

The guiding theme of educator preparation programs in the School of Education is educator as critically reflective practitioner. Courses and experiences provide opportunities for individuals to consider means of building on appropriate knowledge to make instructional, assessment, counseling and leadership decisions.

Organization

The chief administrative office for the School of Education is the Office of the Dean, Room 2090 Oliver Hall. Two associate deans assist in the administrative functions of the school. The associate dean for academic affairs is responsible for the school's Office of Assessment and Technology Services, is responsible for all academic programs offered by the school, assists each department in the administration of the various degree programs and handles administrative areas related to admission, matriculation, graduation and special actions and appeals for graduate students. The associate dean for student affairs is responsible for the school's student services offices and handles the administrative areas related to admissions, matriculation, student appeals and graduation applications for undergraduate students.

The school is organized for the management of instruction and degree programs into six departments: Counselor Education, Educational Leadership, Foundations of Education, Health and Human Performance, Special Education and Disability Policy, and Teaching and Learning. Four of the departments offer undergraduate course work or programs that lead to an undergraduate degree and/or a Master of Teaching (M.T.) degree:

- · Foundations of Education
- · Health and Human Performance
- Special Education and Disability Policy
- Teaching and Learning

Two departments offer graduate degrees only:

- · Counselor Education
- · Educational Leadership

Facilities

The School of Education is housed primarily in Oliver Hall, where classroom, laboratory and activity centers, and faculty and administrative offices can be found. Clinical laboratories are located at 3600 W. Broad St.

Support/resource offices

The School of Education has developed various resources to provide support services to students, faculty and the academic programs. These resources are the Office of Student Services, the Office of Continuing Education and the Instructional Technology Center, which houses state-of-the-art computer laboratories.

Student Services Center

Basic information on the degree programs in the School of Education, as well as forms needed by students as they advance through the programs, are available in the Student Services Center, located on the third floor of Oliver Hall. Students enrolling in the B.S. program can arrange an appointment with undergraduate advising on the first floor of Oliver Hall.

The Office of Student Services in Oliver Hall receives and processes various School of Education application forms and supplies information on the Praxis I examination, Praxis II specialty area tests, Graduate Record Examination and the Miller Analogies Test. For information on student performance on the Praxis examinations, refer to the School of Education Web site at www.soe.vcu.edu/ssc/faq.htm.

This office coordinates clinical placements for students in practica, student teaching, internships and externships. Student teachers and graduate intern teachers are placed in school divisions and other educational facilities in the greater Richmond metropolitan area. Students in non-teacher education programs are placed in practica and clinical experiences through the coordinator of undergraduate advising. Placements are secured in schools, agencies, clinics and hospitals in the greater Richmond metropolitan area. Every effort is made to place students in clinical experiences relevant to their intended career path.

Applications and information on scholarships available to School of Education students can be obtained at the Student Services Center. Information on financial aid administered by the university is found in the appropriate level of "Expenses and Financial Aid" sections of this bulletin.

Licensure and endorsement information, materials and applications for Virginia education personnel are available in the Student Services Center. Licensure and endorsement are based, in part, on the successful completion of an approved program that complies with national standards.

For more information about this center, visit www.soe.vcu.edu/ssc.

Instructional Technology Center

The Instructional Technology Center, a multimedia facility, is used by faculty and students in the School of Education. The center houses microcomputers with sophisticated graphics capabilities, educational software and many similar resources for the development of instructional materials. It also provides access to the School of Education's Local Area Network, VCU Libraries, the Internet and the Web.

Computer laboratories

The Instructional Laboratory, housed in the Instructional Technology Center, gives students many opportunities to learn about computer-assisted instruction in the classroom setting. It also lends support to students enrolled in the computer science basic literacy course and other technology courses offered by the school. The laboratory equipment includes Macintosh and IBM-compatible multimedia computers. Laptop computers, laser printers, color laser printers and scanners also are available.

The INFUSIO Distance Learning Technology Laboratory, also housed in the Instructional Technology Center, is a new technology facility designed to provide assistance to faculty, preservice teachers and associates in the School of Education. The lab presently houses a Polycom two-way video conferencing system, interactive Smart and Softboards, and Mimeo digital meeting assistant technology for electronic note taking. There are several high-end multimedia PC stations and a Macintosh computer with a variety of the latest software programs. Computers are equipped with headphones, microphones and digital cams for use in audio and video recording. The INFUSIO Lab includes a number of assistive technologies designed to enhance the concept of universal learning.

A university computer laboratory open to all students is housed in Oliver Hall. The laboratory is equipped with 24 IBM- and Mac-compatible computers that permit students to access the Internet and MS Office software.

Office of Graduate Studies

The Office of Graduate Studies is responsible for the administration of graduate education from admission through graduation, for master's, doctoral and certificate students. Refer to the Ph.D. in Education section of the bulletin for further information on doctoral programs.

Center for Professional Growth

The Center for Professional Growth is the contact for conducting School of Education off-campus related degree cohort programs, courses for credit and other professional development in-service workshops. Many off-campus partnerships and grant-funded projects also are coordinated and managed. The major emphasis is serving the community of K-12 administrators, teachers and staff in Central Virginia. Additionally, distance learning using various forms of technologies is being developed and offered by this office.

Centers and institutes

Programs, resources and scholarly and service endeavors of the school are extended by a number of academies, centers, institutes and programs directed by the faculty. These include:

Behavioral Intervention Program

Career Connections Techlink

Center for School-Community Collaboration

Center for School Improvement

Center for Sport Leadership

Central Virginia Leadership Academy

Metropolitan Educational Research Consortium

Metropolitan Educational Training Alliance

Partnership for Persons with Disabilities

Professional Opportunities for Developing Excellent Teachers:

English Second Language

Rehabilitation Research and Training Center

Training and Technical Assistance Center

Virginia Adult Learning Resource Center

Licensure and reciprocity

Upon completion of degree requirements in any of VCU's teacher preparation programs and with the recommendation of the School of Education, students are eligible to receive initial teacher licensure from the Virginia Department of Education. For additional information on licensure, licensure renewal or an add-on endorsement, contact the School of Education's Student Services Center.

In Virginia, initial licensure requires successful completion of state-mandated tests. Passing scores on these tests are required to progress through different portions of the licensure programs from admission to teacher preparation, admission to student teaching and recommendation for licensure. For a list of testing requirements, please refer to the School of Education website at www.soe.vcu.edu/ssc.

Students should request that their Praxis I and Praxis II specialty area test scores be reported to VCU and the Virginia Department of Education.

Before a recommendation for licensure can be sent to the Teacher Licensure Division of the Virginia Department of Education, these test scores must be on file with the School of Education's Student Services Center.

Licensure for education personnel

Licensure and endorsement are based in part on the successful completion of an approved program developed in response to nationally recognized standards. All licensure and endorsement programs offered by the School of Education are approved by the Virginia Department of Education and the National Council for the Accreditation of Teacher Education. The commonwealth of Virginia is a member of the National Association of State Directors of Teacher Education and Certification, which has a national reciprocity agreement for teacher licensure. Therefore, all licensure and endorsement programs in the School of Education have approved program status and are a part of the NASDTEC Certification Reciprocity Agreement. Information about VCU students' performance on the

state-mandated licensure tests (Praxis I Reading, Writing and Mathematics, Praxis II Specialty Area Tests, and other required assessments) is available on the School of Education Web site: www.soe.vcu.edu/ssc.

Graduate programs leading to initial teacher licensure

Individuals often decide to pursue a teaching career after they have completed a baccalaureate degree. VCU serves qualified individuals through approved programs leading to a Master of Teaching, Master of Education (special education) or a Post-baccalaureate Certificate in Teaching. Upon completion of a degree program, graduates are eligible for both Virginia licensure and/or endorsement in the specific degree area.

Students seeking initial licensure in Virginia must have earned a liberal arts degree (or its equivalent) and pursue professional studies focusing on a specific area of preparation or licensure. Those without a liberal arts degree who enter a program should expect to take some additional course work prior to the awarding of a degree.

Those planning to teach at the secondary level must possess a major or its equivalent in the discipline in which they wish to teach and for which VCU offers the approved program teaching specialty.

Individuals who wish to obtain licensure in art education, music education or theater education should consult the School of the Arts section of this bulletin.

The Master of Teaching program integrates undergraduate course work for a bachelor's degree in a liberal arts or science major with course work and graduate study leading to a Master of Teaching in a program area.

Approved programs and certification reciprocity

All of VCU's initial teacher preparation programs are approved by the Virginia Department of Education and accredited by the Southern Association of Colleges and Schools and the National Council for Accreditation of Teacher Education. VCU's School of Education also holds membership in the American and Virginia Associations of Colleges for Teacher Education and the Holmes Partnership.

Based on the National Association of State Directors of Teacher Education and Certification agreement, VCU graduates will be eligible for teacher licensure reciprocity with other states. Students interested in licensure reciprocity should contact the School of Education's Office of Student Services.

Programs

Master of Teaching (extended programs)

Biology education

Chemistry education

Early and elementary education

Earth science education

English education

History/social studies education

Mathematics education

Physics education

Teaching health and physical education

Master of Education

Adult learning

Adult literacy

Human resource development

Teaching and learning with technology

Counselor education

College student development and counseling

School counseling

Curriculum and instruction

Instructional technology

Teaching and learning

Educational leadership

Administration and supervision

Leadership studies

Reading

K-12 reading specialist

Reading with TESOL/adult

Reading with TESOL/K-12

Without concentration

Special education

Early childhood

General education

Severe disabilities Sport leadership

Ed.D.

Leadership

Ph.D.

Education

Counselor education and supervision

Curriculum, culture and change

Educational leadership

Educational psychology

Research and evaluation

Special education and disability leadership

Sport leadership

Urban services leadership

Post-baccalaureate graduate certificates

Autism spectrum disorders

College student development and counseling

Disability leadership

Instructional technology

Medical education

Online teaching for K-12 educators

Teaching

Biology education

Chemistry education

English education

History/social studies education

Mathematics education

Physics education

Teaching English to speakers of other languages

Post-master's certificates

Educational leadership

Reading specialist

Extended Teacher Preparation Program

The School of Education, in cooperation with the College of Humanities and Sciences, offers extended teacher preparation programs in early childhood and elementary education (prekindergarten through grade six), health and physical education (grades six through 12) and secondary education (kindergarten through grade 12). The successful completion of these programs results in the simultaneous awarding of both a bachelor's and a master's degree.

General degree requirements

Undergraduate major

Change of major and transfer students

Transcript evaluation

Faculty advisement

Professional development schools

Educator as reflective practitioner

Demographics consideration in teaching

Standards of learning

Technology standards

Extended program in early and elementary or secondary education

Extended program in health and physical education

General degree requirements

The successful completion of these programs results in the simultaneous awarding of both a bachelor's and a master's degree. Prospective Master of Teaching students earn their bachelor's degree in a specific field in which they plan to teach. A student generally begins work on the professional studies component in the third or fourth year of academic study.

A student enrolled in any one of the three extended teacher preparation programs must complete a minimum of 153/154 credits. The student must maintain a cumulative GPA of 2.8 for admission to the teacher preparation program. Completion of at least 90 credits with a minimum GPA of 3.0 in the last 60 semester hours of study is required for that student to be admitted to the graduate studies portion of the extended program.

A Post-baccalaureate Graduate Certificate in Teaching is open primarily to those who have already earned a master's degree. The candidate must complete at least 30 additional hours beyond the bachelor's level. Admittance to this program requires a minimum GPA of 3.0 in the last 60 semester hours of study.

Clinical experiences

All initial licensure programs require clinical experiences throughout the program. During the initial stages of a program, these experiences occur as practica in varied placements in K-12 education relevant to the student's program. Each program also requires a capstone clinical experience in the form of student teaching. For student teaching, those pursuing early and elementary education are placed in two settings, one in early elementary grades (K-2) and one in upper elementary grades (3-5). Those pursuing secondary education receive a single placement in their discipline in a middle school or high school setting.

With the guidance of a mentor, the intern assumes more independence in the field setting. Satisfactory completion of the internship and the preceding training is charted through evaluations made by the university supervisor, colleague-teacher and school administrator.

Undergraduate major

Freshman students who plan to become early and elementary education teachers are required to enroll in the Bachelor of Interdisciplinary Studies liberal studies for early and elementary education major. Transfer students should meet with a B.I.S. adviser prior to course registration. The B.I.S. degree requirements are outlined in the College of Humanities and Sciences section of this bulletin.

Prospective secondary teachers should major in the discipline they wish to teach. The disciplines in which VCU offers licensure programs are as follows: English, history/social studies, mathematics and science (various specialities). Students should consult with their education adviser to ensure that courses taken to meet major requirements also meet state licensure requirements.

Change of major and transfer students

Students wishing to enter the Extended Teacher Preparation Program in early and elementary education or secondary education must transfer initially to the College of Humanities and Sciences. They must declare a major in the college and a specialization in the appropriate professional studies sequence in the School of Education. Students who wish to enter the extended program in health and physical education must choose the general health and physical education concentration in the health, physical education and exercise science major within the School of Education.

For admission to teacher preparation, a minimum GPA of 2.8 is required. A minimum GPA of 3.0 in the last 60 semester hours of study is required for admission to the graduate phase of the Extended Teacher Preparation Program.

Transcript evaluation

The College of Humanities and Sciences evaluates transcripts of students pursuing the extended program in early and elementary education or secondary education; transcripts of students pursuing the extended program in health and physical education are evaluated by the School of Education. Credits are accepted if they conform to specific program guidelines; course equivalents from accredited colleges and universities are accepted if the grade earned is C or better. From the extended program, 60 semester hours of acceptable undergraduate course work are required to be admitted to a teacher preparation program. See specific criteria in the "Admission to the Extended Teacher Preparation Programs" section of this bulletin.

Credits that are accepted from two-year institutions may meet liberal arts and sciences requirements, but will not meet professional requirements for upper-division course work. The VCU Transfer Guide for Virginia Community Colleges lists, in full, credits accepted by VCU that have been earned in the state's community colleges.

After the initial student transcript evaluation, the assigned adviser reviews the accepted transfer credits with the student, determining what additional course work at VCU will be necessary. An adviser is not required to use all the accepted transfer credits in a student's program of study. Only those credits approved for transfer can be applied toward the chosen degree.

Faculty advisement

An academic adviser is assigned to a student by the department of that student's chosen major in the College of Humanities and Sciences. A professional studies adviser is similarly assigned by the Department of Teaching and Learning or the Department of Health and Human Performance according to the student's proposed teaching endorsement. This adviser-student relationship continues throughout the course of study at VCU. Student and adviser jointly develop the student's individual program. During the planning process, the student identifies, clarifies and explores his or her personal and professional goals.

Educator as reflective practitioner

The guiding theme of the teacher preparation program is "educator as reflective practitioner." The underlying foundation of instruction in the teacher preparation program is to challenge the prospective teacher to develop skills in critical reflection and to value thoughtful decision making. Candidates demonstrate critical reflection by: being open to and respectful of all stakeholders; taking other perspectives into account; utilizing critical thinking in framing and solving educational problems; making informed, ethical and professional decisions; and taking ethical and professional action.

Demographics consideration in teaching

The demographics of elementary, middle and high school students are changing. There is an increase in the number of students for whom English is not the first language, of minority students, of students who do not all learn or respond in similar ways and of students who may be identified as possessing a disability.

Future teachers are encouraged to take advantage of opportunities through formal courses and other experiences to gain greater insight and ability in addressing learners from differing cultural backgrounds and considering the needs of learners with different learning styles, participation styles, and special abilities or disabilities.

Standards of learning

Much of the prekindergarten through grade 12 curriculum is based on the commonwealth of Virginia's current Standards of Learning. Students preparing to be teachers are advised to examine the SOLs for the grade levels and content areas they plan to teach. The School of Education website has a link to the SOLs.

In some instances the content and concepts associated with one or more SOLs may be incorporated in a course in the College of Humanities and Sciences or in the School of Education, but as the SOLs are for a kindergarten through grade 12 curriculum and not a college curriculum, one may need to study several of these on her or his own.

Technology standards

The use of computers, graphing calculators, science probeware and other technologies is integral to successful teaching in today's schools. Individuals preparing to teach must be competent on each of the eight standards in Virginia's Technology Standards for Instructional Personnel. These standards may be reached through the School of Education website.

Students are advised to consult with the professional studies adviser regarding the program's requirements for demonstrating competence. Several of the standards may be documented as met by passing the Computer Literacy Examination offered online through Knowledgenet. Please see the General education requirements for undergraduate study in the "College of Humanities and Sciences" section of this bulletin.

Extended program in early and elementary or secondary education

In the extended program, a student generally begins work on the professional studies component in the third year of study. Information on specific requirements for all academic majors is available in the Department of Teaching and Learning, in the College of Humanities and Sciences' associate dean's office or through the department of the chosen major. Students may visit www.soe.vcu.edu/departments/tl for information about programs in the Department of Teaching and Learning. A student in the extended program must maintain a minimum cumulative GPA of 2.8 for admission to teacher preparation and clinical experience and, prior to the fifth year, a minimum GPA of 3.0 for admission to the graduate study portion of the program.

Extended program in teaching health and physical education

Students who plan to become health and physical education teachers should enroll in the Bachelor of Science in Health, Physical Education and Exercise Science major with a concentration in general health and physical education. Transfer students should consult with a program adviser prior to course registration. The requirements for the B.S. are outlined in the program section of this Bulletin.

In the extended program students pursue an integrated curriculum leading to simultaneous awarding of a B.S. and Master of Teaching. Students begin professional studies early in the program. A student in the extended program must maintain a GPA of at least 2.8 for admission to teacher preparation (generally in the third year) and a minimum GPA of 3.0 to be admitted to the graduate portion of the program. Admission to graduate study typically occurs during the fourth year of study.

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Admission information

Any undergraduate admitted to VCU who declares a major in the College of Humanities and Sciences is eligible to declare a specialization in special education or secondary education. Students specializing in early and elementary education must declare liberal studies for early and elementary education as their major in the Bachelor of Interdisciplinary Studies program. Undergraduates admitted to VCU who wish to become teachers of health and physical education must choose the general health and physical education concentration (teacher preparation) in the B.S. in Health, Physical Education and Exercise Science program in the School of Education.

Transfer students and students currently attending VCU who wish to change their majors to this program must have a minimum GPA of 2.0; however, note the much higher GPA requirement for admission to teacher preparation and then to graduate study. All students in the program, upon completion of 60 hours of undergraduate course work and prior to completion of 90 hours, must apply for admission to teacher education. To be accepted, a student must have a minimum GPA of 2.8 and must have achieved the required Commonwealth of Virginia scores on Praxis I tests and must have achieved the established composite score for the three tests.

Students who pursue one of the extended teacher preparation programs follow a series of steps as noted in order to meet all requirements, including the 153/154 credits

Step 1: Admission to the university

Requirements

- a.) Scores from Scholastic Aptitude Test (SAT) or American College Test (ACT)
- b.) Minimum 2.0 GPA from high school or previous college

Procedures

a.) Declare an undergraduate major in the College of Humanities and Sciences (for early and elementary or secondary education) or a major in health, physical education and exercise science with a general health and physical education concentration in the School of Education (for health and physical education).
b.) Declare an education specialization in early and elementary education, secondary education or health and physical education.

Step 2: Admission to teacher preparation

Complete before enrolling in the first practicum (upon completion of 60 credits of liberal arts and prior to completion of 90 credits).

Requirements

- a.) 2.8 GPA or better
- b.) Completion of six hours of English, three hours of mathematics, four hours of laboratory science and six hours of social science and/or history.
- c.) Meet Virginia scores required for the mathematics portion of Praxis I and achieve a passing score on the Virginia Communication and Literacy Assessment
- d.) Confirmation of education specialization (Undecided majors must decide.)
- e.) Enroll in or have completed TEDU 101, EDUS 300, EDUS 301 or equivalent course

Procedures

- a.) Complete Admission to Teacher Preparation Application Form (obtain in Office of Student Services) and submit a current transcript
- b.) Complete TEDU 101, EDUS 300, EDUS 301 or equivalent course; submit

required Praxis scores

c.) Register in dean's office for interview upon returning Admission for Teacher Preparation Application Form; complete required interview with education program faculty

Note: Students must be admitted to Teacher Preparation Program to be eligible for practicum placement and accompanying courses. Applications for practicum are available at the Office of Student Services. (In secondary education, such applications may be distributed at the initial class meeting.)

d.) Register for, take and submit required Praxis I scores

Step 3: Application to graduate studies

Requirements

- a.) 3.0 GPA or better
- b.) Acceptable scores on the Graduate Record Examination (GRE) or Miller Analogies Test (MAT). Generally students are expected to score at least an 800 composite (Verbal and Quantitative) on the GRE or 386 on the MAT.
- c.) Personal statement addressing reasons for seeking graduate education, including career goals; experience working with age group to be taught; reasons for entering teaching; and success in organizing, planning and implementing work with other individuals
- d.) Three references: it is suggested that these be instructors or advisers in the College of Humanities and Sciences and the School of Education; use Graduate Studies Reference Forms

Procedures

- a.) Obtain Graduate School Admissions packet from the Office of Student Services in Room 3106, Oliver Hall
- b.) Return completed application packet, along with up-to-date transcripts, to the VCU Graduate School

Note: Students must be admitted to the Graduate School to be eligible to enroll in graduate-level courses. No more than six graduate credits taken prior to admission to graduate study may be accepted toward the degree.

Application deadlines for early and elementary or secondary education

- Nov. 1 for spring semester
- · March 15 for summer and fall sessions

Step 4: Internship

All programs require a graduate-level internship (TEDU 672 and TEDU 674) during the fifth year. Applications for internship can be obtained in the Office of Student Services in Room 3106, Oliver Hall. Individuals in early and elementary education are placed in a kindergarten and a grade one through six classroom in the same semester. Individuals in secondary education typically have a single placement, although perhaps with two different teachers. Individuals in health and physical education typically have two placements: one and the elementary level and another at the secondary level.

Requirements

- a.) 3.0 GPA or better on graduate courses
- b.) Admission to teacher preparation and to graduate study
- c.) Completed application and transcripts submitted by established deadlines
- d.) Passing scores on applicable Praxis II specialty tests accompanying application

Procedures

- a.) Obtain application form from the Office of Student Services.
- b.) Submit copies of transcripts and required statement to a professional studies adviser for review.
- c.) Obtain approval signature of professional studies adviser.
- d.) Submit completed application to Office of Student Services by Sept. 15 for the following spring semester; by March 1 for the following fall semester.

Step 5: Admission to the profession

(during the final semester of enrollment)

Requirements

- a.) Completion of all degree requirements
- b.) Completion of application for initial teacher licensure (obtain from Office of Student Services)

Procedures

a.) Complete applications for undergraduate degree in humanities and sciences or health, physical education and exercise science with academic major adviser, and graduate degree in teaching with professional studies adviser.

b.) Submit application for initial teacher licensure with signature of university supervisor or professional studies adviser to the Office of Student Services.

Added or add-on endorsements

Added or add-on endorsements Teaching English as a Second Language

The School of Education offers the Virginia Department of Education ESL preK-12 endorsement for pre-service and in-service teachers. The ESL endorsement program at VCU requires 18 credit hours of ESL course work and 6 credit hours of a modern foreign language. Candidates must complete the following courses:

Credits ESL qualifying courses ENGL/LING/ANTH 390 Introduction to Linguistics 3 ENGL/LING/TEDU 552 Teaching English as a Second 3 Language TEDU 561 Reading Foundations TEDU 562 Teaching Reading in the Content Areas 3 TEDU/FRLG 575 Intercultural Communication TEDU 681 Investigations and Trends in Teaching (ESL curriculum and assessment) Foreign language courses (modern languages only) Total 24

Add-on endorsements in grades 6 through 12, science

Add-on endorsements in science are available in biology, chemistry, earth science and physics. Each add-on requires a first endorsement in one science and at least 18 semester hours in the add-on science that includes preparation in specified areas. The earth science added endorsement is listed below. For information about the added endorsements in biology, chemistry or physics, contact the Department of Teaching and Learning.

Earth science

To add an earth science endorsement to an endorsement in another science discipline, the individual must earn at least 18 semester hours in the earth sciences, including preparation in geology, oceanography, meteorology and astronomy. Courses to meet these requirements include:

GEOG/ENVS and GEOZ/ENVZ 105 Physical Geology and Laboratory

GEOG/ENVS and GEOZ/ENVZ 335 Environmental Geology and Laboratory

GEOG/ENVS 411 Oceanography

GEOG/ENVS 401 Meteorology and Climatology

PHYS 103 Astronomy

Elective courses to complete at least 18 hours include: GEOG 203 and 204 Physical Geography and PHYS 391 Fieldwork and Special Topics.

School of Education courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

The School of Education offers courses in the following areas:

Use this link to see administration and supervision (ADMS) courses.

Use this link to see adult education (ADLT) courses.

Use this link to see athletic training (ATTR) courses.

Use this link to see counselor education (CLED) courses.

Use this link to see early childhood special education (ECSE) courses.

Use this link to see educational leadership (EDLP) courses.

Use this link to see educational studies (EDUS) courses.

Use this link to see emotional disturbance (EMOD) courses.

Use this link to see English education (ENED) courses.

Use this link to see health and movement sciences (HEMS) courses.

Follow these links to health, physical education and exercise science (HPEX) courses or the (HPEZ) laboratories.

Use this link to see interdisciplinary developmental disability studies (IDDS) courses.

Use this link to see mental retardation (MNRT) courses.

Use this link to see reading (READ) courses.

Use this link to see reading and study skills (RDSS) courses.

Use this link to see rehabilitation and movement science (REMS) courses.

Follow these links to recreation, parks and sport management (RPSM) courses or the (RPSZ) laboratories.

Use this link to see special education and disability policy (SEDP) courses.

Use this link to see special education – learning disabilities (SELD) courses.

Use this link to see sport leadership (SPTL) courses.

Use this link to see teacher education (TEDU) courses.

Graduate information

Admission procedures for graduate study

Application procedures

Application forms and instructions for applying to all graduate programs are available on the Graduate School Web site at www.graduate.vcu.edu. Note that applications cannot be processed until they are complete (including test scores). Admission information specific to each program can be found in the division section of this bulletin.

Test scores

Either the GRE, General Aptitude portion, or the MAT is required for the Master of Teaching, the Master of Education, the Master of Science, the Post-master's Certificate for Principals and Supervisors, the Post-master's Certificate in Reading, the Post-baccalaureate Certificate in Teaching and the Post-baccalaureate Certificate in Instructional Technology. The Ph.D. program requires the GRE, General Aptitude portion.

A passing score on Praxis I, although not required for graduate admission, is required for placement in clinical experiences (practica, internships and certain externships) as well as for licensure in Virginia. Contact the Student Services Center for applications for Admission to Teacher Preparation, booklets on Praxis I and Praxis II, and information regarding offerings of the Praxis examinations by paper and pencil or by computer. Information about the tests may be obtained in the Student Services Center as well.

Application deadlines

The following application deadlines have been established for the Master of Education, the Master of Science, the Master of Teaching and the Post-baccalaureate Certificate in Teaching.

Mar 15 Summer session or fall semester term of entry

Nov 1 Spring semester term of entry

The Ph.D. in Education has the following application deadline:

Jan 15 Fall semester term of entry

Students who are unable to enroll for the semester for which they are accepted must request a deferment.

General admission requirements

The admission decision will be made on an overall analysis of the following for each degree program. See each division section for any additional information.

Master of Teaching, Master of Education, Master of Science, Post-master's Certificate in Educational Leadership, Post-master's Certificate in Reading,

Post-baccalaureate Graduate Certificate in Instructional Technology and Post-baccalaureate Graduate Certificate in Teaching

- A minimum GPA of 3.0 on a 4.0 scale on the last 60 semester hours of study.
- Applicants whose GPA during the last 60 hours of course work falls just below 3.0 may be considered based on the strength of the overall application.
- Acceptable scores on the GRE or the MAT. Normally, students are expected
 to score at least 290 combined on the Quantitative and Verbal sections of the
 GRE with neither score falling below the 20th percentile, or at least 386 on
 the MAT
- An interview with the applicant may be required by the faculty of the program to which the applicant is seeking admission.

Ph.D. in Education

Refer to the Ph.D. in Education program section of this bulletin for admission requirements.

Ph.D. in Rehabilitation and Movement Science

Refer to the Ph.D. in Rehabilitation and Movement Science section of this bulletin for admission requirements.

Advising and student program planning

All students admitted to the School of Education are assigned advisers. Students are expected to work with their adviser to plan their programs of study. Each graduate program agreement, or changes thereto, must be approved by the adviser and the appropriate department chair, or the associate dean for academic programs. Courses taken without approval are taken at the student's risk. Each student is required to complete and file a program plan with the department before the completion of the sixth credit hour.

Steps to completing M.Ed. and M.S. degrees

		J
Step	When	Where
1. Admission	0-6 hours	Student Services Center
2. Program of studies	0-6 hours	With adviser, approved by department chair
3. Candidacy	12-18 hours	Application approved by adviser, core coordinator, department chair
4. Comprehensive examination*	30 hours	Application to department office
5. Externship or internship	Usually the last semester of course work	Application from Office of Student Services
6. Graduation	Last semester of course work; see current bulletin for deadline	Application from registrar (approved by adviser, department chair, dean's office and returned to registrar)

^{*} Not required in M.S. in Recreation, Parks and Sport Management, and M.Ed. in Special Education and being phased out in the M.Ed. in Curriculum and Instruction.

The chart outlines the general steps to completing the Master of Education and the Master of Science degrees. All other graduate-level students in the School of Education should refer to the appropriate section of this bulletin for information specific to these programs.

Admission to candidacy

Admission to graduate study in the Master of Education or Master of Science programs does not constitute candidacy for a degree. Rather, students who have been admitted to graduate study are advanced to degree candidacy upon the recommendation of the adviser, core faculty and department in which the degree is sought.

Advancement to degree candidacy requires that students must have completed at least 12 but no more than 18 semester hours of graduate study with a minimum GPA of 3.0; must have demonstrated clearly the aptitude and ability to pursue graduate study, including independent study; must have exhibited a commitment to their profession; and must have demonstrated promise for a successful career in the field selected in terms of temperament and personality. Specific courses may

be required prior to application for candidacy. Admission to degree candidacy is not an automatic process. Students must file an approved application for candidacy with their departments. Only students who have been admitted to candidacy may pursue additional work toward the degree.

Comprehensive examination

- Some students in a Master of Education or Master of Science in Health and Movement Science program must take a three-hour written comprehensive examination.
- Written examinations will be given on the first Saturday in November, the
 fourth Saturday in March, and the second Saturday in July. Students must
 notify the department in writing of the intention to take the examination at
 least 30 days prior to the published date. All comprehensive examinations
 must be taken on dates indicated except for religious or health reasons. Any
 exceptions must be approved in advance by the department chair.
- A minimum of three faculty members, designated by the core faculty, will
 evaluate each examination independently. Satisfactory performance on the
 comprehensive examination requires approval of two of the three evaluators.
- Any student failing the comprehensive examination must have a joint conference with at least two core faculty members, one of whom is the student's adviser, before taking the comprehensive examination again.
- During the conference, the core faculty members may recommend additional academic preparation and/or competencies that must be met by the student prior to retaking the comprehensive examination.
- The student will be notified by letter of the recommendations made by the core faculty in the conference.

The student will have only two opportunities to take the comprehensive examination. Failure to pass the comprehensive examination the second time will result in the student being dropped from the degree program.

Transfer credit

A maximum of six credit hours of acceptable graduate credit may be transferred into a graduate degree program. Course work taken prior to being admitted to a program in the School of Education and not applied to another degree may be applied for transfer. This includes course work taken at VCU.

Course work submitted for transfer is evaluated by the student's adviser and the department head. See the Ph.D. in Education program section of this bulletin for information regarding transfer credit for this program.

As a general rule, continuing education courses taken at institutions other than VCU will not be transferred.

Students seeking to earn credit at other institutions after acceptance to a graduate program in the School of Education must receive prior approval from their advisers and the department chair, or the director for the Ph.D. program. See the Graduate School section of this bulletin for further information regarding transfer credit.

Center for Sport Leadership at VCU

The Center for Sport Leadership at VCU was developed with the idea of creating an innovative, practical learning environment that would prepare students for a successful career in the sport industry. This new educational paradigm teaches students the necessary skills, while giving them ownership of operational responsibility to the organization and providing access to upper-level administrators and coaches. The Center for Sport Leadership has placed students in every area of the industry, including professional, intercollegiate, Olympic, nonprofit and grassroots organizations. These successful alumni provide a useful tool in establishing a network base for connecting with future leaders in the industry.

Administration

Sports Medicine Building 1300 West Broad Street P.O. Box 842003 Richmond, Virginia 23284-2003

Phone: (804) 828-7821

Fax: (804) 828-4938 www.sportleadership.vcu.edu

Carrie Le Crom

Director

Brendan Dwyer

Assistant Director

Education, Doctor of Philosophy (Ph.D.) with a concentration in sport leadership

Graduate program director

Henry T. Clark, Ph.D. Senior associate dean for academic affairs htclark@vcu.edu

(804) 828-3382

Additional contact

Brendan P. Dwyer, Ph.D. Concentration coordinator, sport leadership bdwyer@vcu.edu (804) 827-5131

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Education, Doctor of Philosophy (Ph.D.) with a concentration in counselor education and supervision

Education, Doctor of Philosophy (Ph.D.) with a concentration in curriculum, culture and change

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational leadership

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational psychology

Education, Doctor of Philosophy (Ph.D.) with a concentration in research and evaluation

Education, Doctor of Philosophy (Ph.D.) with a concentration in special education and disability leadership

Education, Doctor of Philosophy (Ph.D.) with a concentration in urban services leadership

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Education, Doctor of Philosophy (Ph.D.) with a concentration in sport leadership			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Ph.D.	Summer or fall	Nov 15 (early consideration)	GRE
		Feb 1 (final deadli	ne)

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Master's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. A personal interview and writing sample (may be requested
- 6. Professional vitae/resume
- 7. Satisfactory scores on the GRE

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The sport leadership concentration is designed for students to research, comprehend and interpret contemporary literature as it relates to leadership in the sport industry and to extend knowledge and understanding of leadership in that industry. Students will have the opportunity to integrate theory and practice in the specific areas of economics, finance, marketing, management, communications and sociology of sport. Upon completion of the doctoral course work and dissertation, students will be prepared for higher education positions in sport management/administration and/or sport leadership programs across the U.S.

Student learning outcomes

- 1. Complete an original research study: dissertation component Student will design, implement, analyze and defend an original research study. Once a student passes the prospectus hearing, he or she will collect and analyze the data and finish writing the last two chapters of their dissertation. Students have a committee of a minimum of four faculty members. Typically, this consists of a chair, a methodologist, a subject-matter expert and an expert outside of the School of Education. Each committee member independently reviews the student's work. Once the dissertation defense has occurred, the committee discusses their thoughts on the quality of the student work. Once all members agree, the student is granted a Ph.D.; therefore, inter-rater reliability is extremely high.
- Apply skills in external setting: externship component Students will
 demonstrate their knowledge and skills in a professional placement in a
 school, agency or corporate setting. The faculty adviser and the externship
 site supervisor work together to evaluate the student.
- B. Develop research knowledge and skills: research component Students will acquire the prerequisite skills essential to designing, conducting and interpreting qualitative and quantitative design research. Students will demonstrate this knowledge and skill set on a qualifying examination, which is independently evaluated by at least two faculty members. To address interrater reliability, if the two faculty members disagree on the student's level of knowledge, a third faculty member is called in to evaluate the student's responses on the qualifying examination. This exam is also graded "blindly," meaning that the evaluator does not know which student he or she is evaluating.
- 4. Develop in-depth knowledge in one area of study: concentration component Students will demonstrate in-depth knowledge and skills in an area of study that is congruent with their current or projected career goals. Content will differ according to chosen concentration.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 48-54 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in three courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- 3. Externship requirement: Students must complete an approved externship.
- Examination requirements: Students must pass both a qualifying examination early in the program and a comprehensive examination near the end of the program.
- Dissertation requirements: Students must complete and defend a research dissertation.

Curriculum requirements

Courses	Credit hours
Foundation	6
EDUS 702 Foundations of Educational Research and Doctoral Scholarship I	3
EDUS 703 Foundations of Educational Research and Doctoral Scholarship II	3
Research	12
EDUS 608 Educational Statistics	3
EDUS 710 Educational Research Design	3
EDUS 711 Qualitative Methods and Analysis	3
Research elective	3
Externship	3
EDUS 700 Externship	3
Dissertation	9 (minimum)
EDUS 890 Dissertation Seminar	3
EDUS 899 Dissertation Research (minimum of 6 credit hours)	6 (minimum)
Concentration courses	18
SCMA 643 Applied Multivariate Methods	3
SPTL 701 Seminar in Sport Research	3
SPTL 702 Seminar in Sport Leadership and the Profession	3
SPTL elective	3
6 credit hours of doctoral course work in focus area (universitywide electives to be selected in consultation with adviser)	6

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Below is a link to the Doctoral Student Handbook: soe.vcu.edu/wp-content/uploads/sites/3436/2014/10/2014 PhD Handbook.pdf

Sport Leadership, Master of Education (M.Ed.)

Graduate program director

Carrie W. LeCrom, Ph.D. Interim executive director, Center for Sport Leadership celecrom@vcu.edu (804) 828-6443

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.)/Sport Leadership, Master of Education (M.Ed.) [dual degree]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Sport Leadership, Master of Education (M.Ed.)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.Ed.	Fall	Apr 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work

Students should contact the Center for Sport Leadership at VCU at (804) 828-7821 or link directly to sportleadership.vcu.edu for information and application materials.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the

University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Center for Sport Leadership at VCU offers a structured graduate program combining classroom theory with exposure to relevant field experiences. Through the sport leadership program, students will be prepared to assume the responsibilities for developing professional and amateur athletes and managing sports programs in a variety of academic, public and private sectors. The interdisciplinary faculty and curriculum give students the opportunity to concentrate on areas most important to them and most relevant to the sports business. Students of the program are required to complete a comprehensive examination.

The center offers graduate courses online for those students who want to take advantage of educational opportunities via the Internet. Currently, three classes are available each semester.

Student learning outcomes

- Content knowledge of sport industry: Students will be able to analyze and synthesize information and develop plans to address issues in sport leadership.
- Development of interpersonal skills and professionalism: Students will demonstrate interpersonal skills and professionalism appropriate to the fields of sport management and coaching.
- Development of leadership skills: Students will demonstrate content knowledge of leadership skills and traits, as well as the ability to utilize these skills and traits in a professional setting.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 36 credit hours.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Examination requirement: Students must pass a comprehensive examination (see below).
- 4. Externship requirement: Students must complete an externship in the sport field

Comprehensive examination:

- Written comprehensive examinations are required for all graduate students in the VCU Center for Sport Leadership.
- Comprehensive examinations will take place at the end of the spring semester for each cohort of full-time, on-campus students and at the completion of 30 credit hours of course work for all part-time/distance-learning students.
- 3. Comprehensive examinations will be evaluated in a pass/fail format.
- Comprehensive examinations will be independently evaluated by two faculty members; in the case that the faculty members disagree, a third faculty member will be brought in for a final decision.
- Any student failing the comprehensive examination will have one additional opportunity to pass the exam. Failure to pass the comprehensive examination the second time will result in the student being dropped from the degree program.

Curriculum requirements

Courses	Credit hours
Required core	18
SPTL 603 Research Methods in Sport	3
SPTL 630 Sociology of Sport	3
SPTL 632 Sport Business	3
SPTL 633 Marketing of Sport	3
SPTL 635 Leadership Models in Sport	3
SPTL 643 Sport Law	3
Selective courses (hours dependent on credits for externship)	6-9
SPTL/HEMS 591 Topical Seminar (maximum 6)	1-3
SPTL 604 Research Practicum	3
SPTL 608 Sport and Entertainment Event Development	3
SPTL 610 Sport and Entertainment Event Development	3
SPTL 631 Contemporary Issues in Sport	3
SPTL 634 Foundations of Coaching	3
SPTL 640 Sport Media and Communications	3
SPTL 641 Sports Psychology	3
SPTL 642 Sport Ethics	3
SPTL 644 NCAA Collegiate Coaching	3
SPTL 651 Advanced Coaching Techniques	3
SPTL 691 Topics in Sport Leadership	3
Field experiences	9-12
SPTL 604 Research Practicum	3
SPTL 607 Field Instruction	3
SPTL 692 Independent Study	1-3
SPTL 695 Externship	3-6
Total graduate credit hours required (minimum)	36

Credit hours

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Business Administration, Master of (M.B.A.)/Sport Leadership, Master of Education (M.Ed.) [dual degree]

Program accreditation

Association to Advance Collegiate Schools of Business

Graduate program director

Colleen A. Davis Senior director, master's programs androvichcm@vcu.edu (804) 828-4622

Additional contact:

Carrie LeCrom, Ph.D.
Interim executive director, Center for Sport Leadership cwlecrom@vcu.edu
804-828-6443

Program website: business.vcu.edu/graduate/sports.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Business Administration, Master of (M.B.A.)
Business Administration, Master of (M.B.A.) [Executive]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Business Administration, Master of (M.B.A.)/Sport Leadership, Master of Education (M.Ed.) [dual degree]			
Degrees: M.B.A. and M.Ed.	Semester(s) of entry:	Deadline dates:	Test requirements: GMAT or GRE
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Applicants must meet all general admission requirements of the VCU Graduate School.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The dual-degree M.B.A./M.Ed. in Sport Leadership program will prepare students for leadership positions by combining the business teaching of an M.B.A. program with sport industry-specific knowledge gained in the M.Ed. program. This degree combination recognizes the growing complexity of the sport industry and reinforces the Center for Sport Leadership's commitment to preparing students for the leadership challenges of the future. The dual degree offers students course work and knowledge they will need to be successful in a business setting combined with the application and networking skills required in today's sport industry.

The M.B.A. phase of the program will encompass a problem-based learning style, immersing students in collaborative projects and working situations that are commonplace in the business world. Students will learn business concepts in a real-life context and develop skills in communication, collaboration and teamwork that are essential for success, while developing their abilities to be creative, take initiative and accept personal responsibility for their actions.

The M.Ed. program will combine classroom and practical experience to prepare individuals for leadership positions in the sport industry. An interdisciplinary approach gives students the freedom to choose courses of personal interest and build a foundation of knowledge in their desired career fields.

Student learning outcomes

- Students should be able to demonstrate the capacity to apply business knowledge in new and unfamiliar circumstances.
- Students should be able to demonstrate the ability to work in teams and other groups.
- Students should understand and be able to develop the ethical and social responsibilities of organizations.
- Students should be able to describe the factors involved in key operation decisions and to appropriately apply techniques that provide insight and structure for management decision-making.
- Students should be able to identify and understand major issues faced by
 organizations with evolving information technology and investigate issues
 and challenges faced by managers with changes in information technology.
- Graduates of the program should be able to critically evaluate and use accounting and other information for managerial decision-making.
- 7. Graduates should be able to evaluate marketing programs.
- Students should be able to think critically and systematically about financial issues in businesses and to develop techniques to analyze these issues numerically.
- Graduates of the program should be able to develop an analytical framework for identifying the objectives of the firm and to provide some tools for evaluating the firm's performance.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students can complete both degrees with two years of study and will receive both degrees at the conclusion of the entire program. Students may enter the program only in the fall semester.

Curriculum requirements

Courses	Credit hours
ACCT 608 Managerial Accounting Concepts	3
ECON 610 Managerial Economics	3
FIRE 623 Financial Management	3
INFO 661 Information Systems for Managers	3
INFO 664 Information Systems for Business Intelligence	3
MGMT 641 Organizational Leadership and Project Team	3
Management	
MGMT 642 Business Policy and Strategy	3
MKTG 671 Marketing Management	3
SCMA 675 Operations Management	3
SPTL 603 Research Methods in Sport	3
SPTL 608 Sport and Entertainment Event Development	3
SPTL 610 Sport and Entertainment Event Development	3
SPTL 630 Sociology of Sport	3
SPTL 632 Sport Business	3
SPTL 643 Sport Law	3
SPTL 695 Externship	1-6

Electives

Choose four courses from the list below.

Total graduate credit hours required (minimum)		
Electives	9	
ACCT 606 International Accounting	3	
CISS 697 Guided Study	3	
ECON 604 Advanced Microeconomic Theory	3	
ECON 607 Advanced Macroeconomic Theory	3	
ECON 609 Advanced International Economics	3	
ECON 612 Econometrics	3	
ECON 616 Advanced Public Finance	3	
ECON 617 Financial Markets	3	
ECON 620 The Economics of Industry	3	
ECON 631 Labor Market Theory and Analysis	3	
ECON 641 Econometric Time-series Analysis	3	
ECON 642 Panel and Nonlinear Methods in Econometrics	3	
ECON 697 Guided Study in Economics	1-3	
ENGR 691 Special Topics in Engineering	3	
ENVS 691 Topics in Environmental Studies	3	
FIRE 621 Cases in Financial Management	3	
FIRE 622 Financial Management of Financial Institutions	3	
FIRE 625 Group Insurance and Pension Planning	3	
FIRE 626 Risk Management	3	
FIRE 627 Real Estate Development	3	
FIRE 629 Real Estate Investment Analysis	3	
FIRE 635 Investments and Security Analysis	3	
FIRE 638 Real Property Investment Law	3	
FIRE 639 International Finance	3	
FIRE 650 Derivatives	3	
FIRE 654 Short-term Financial Management	3	
FIRE 657 Current Issues in Investments and Markets	3	
FIRE 658 Real Estate Finance and Investments	3	
INFO 610 Analysis and Design of Database Systems	3	
INFO 611 Data Re-engineering	3	
INFO 614 Data Mining	3	
INFO 632 Business Process Engineering	3	
INFO 641 Strategic Information Systems Planning	3	
INFO/CISS 644 Principles of Computer and Information Systems	3	
Security		
INFO 691 Topics in Information Systems	1-3	
INFO 697 Guided Study in Information Systems	1-3	
MGMT 637 Advanced Human Resource Management	3	
MGMT 644 International Business Management	3	
MGMT 649 Compensation Policy and Administration	3	
MGMT 655 Entrepreneurship	3	
MGMT 656 Best Practices in Leadership	3	
MGMT 677 Quality Management and Six Sigma	3	
MGMT 680 Health, Safety and Security Administration	3	
MGMT 682 Human Resource Staffing	3	
MGMT 684 Issues in International Human Resource Management	3	
MGMT 691 Topics in Management	3	
MGMT 697 Guided Study in Management	1-3	
MKTG 656 International Marketing	3	
MKTG 657 International Market Planning Project	3	
MKTG 672 Concepts in Consumer Behavior	3	
MKTG 673 Marketing Research	3	
MKTG 674 Service Quality Management	3	
MKTG 691 Topics in Marketing	3	
MKTG 693 Field Project in Marketing	3	
MKTG 697 Guided Study in Marketing	1-3	

OPER 528 Stochastic Simulation	3
SCMA 632 Statistical Analysis and Modeling	3
SCMA 643 Applied Multivariate Methods (must have completed SCMA 632)	3
SCMA 645 Management Science	3
SCMA 646 Legal Foundations of Employment	3
SCMA 669 Developing and Implementing Forecasting Methods for	3
Business	
SCMA 677 Quality Management and Six Sigma	3
SPTL 634 Foundations of Coaching	3
SPTL 640 Sport Media and Communications	3
SPTL 644 NCAA Collegiate Coaching	3
SPTL 645 Sales and Development	3
SPTL 691 Topics in Sport Leadership	1-3

Note: MGMT 641, MKTG 671, SPTL 695 and one elective (three credit hours) from either program may be counted toward both the M.B.A. and the M.Ed. degrees.

Sample plan of study

Courses		Credit hours
Fall 1		12
ECON 610 Managerial Economics	3	
MGMT 641 Organizational Leadership and Project Team Management	3	
SPTL 603 Research Methods in Sport	3	
SPTL 643 Sport Law	3	
Spring 1		12
FIRE 623 Financial Management	3	
MKTG 671 Marketing Management	3	
SPTL 630 Sociology of Sport	3	
SPTL 632 Sport Business	3	
Summer 1		1-6
SPTL 695 Externship	1-6	
One business elective	1-3	
Fall 2		12
ACCT 608 Managerial Accounting Concepts	3	
INFO 661 Information Systems for Managers	3	
SPTL 608 Sport and Entertainment Event Development	3	
One business or SPTL elective from above or other courses with approval	3	
Spring 2		9
ACCT 608 Managerial Accounting Concepts	3	
INFO 661 Information Systems for Managers	3	
SPTL 608 Sport and Entertainment Event Development	3	
One SPTL elective from above or other courses with approval	3	
Summer 2		6
MGMT 642 Business Policy and Strategy	3	
One SPTL elective from above or other courses by approval	3	
Concentrations		
M.B.A./M.Ed. students who wish to have a concentration would nee	d to	complete

M.B.A./M.Ed. students who wish to have a concentration would need to complete an additional three courses. Refer to the program search function of the online VCU Bulletins for information regarding elective course selection for each M.B.A. concentration area.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Business policies and procedures for graduate master's degree students are available on the school's website at business.vcu.edu/graduate/current.html.

Department of Counselor Education

The Department of Counselor Education at Virginia Commonwealth University is committed to excellence in the initial preparation and continuing development of professionals in the counseling field. The department, located in an urban setting, provides graduate students with research-based professional studies and clinical experiences necessary for effective counseling, advocacy and leadership in diverse geographic and socioeconomic settings. Specifically, the department prepares counselors with the specialized knowledge and skills required for placement in elementary, middle and high schools, as well as postsecondary educational institutions in the commonwealth of Virginia and throughout the nation. Consistent with this approach are the program goals of graduating students who have knowledge of basic counseling theory and practice, possess competencies in essential counseling services, exhibit scholarly inquiry, have the skills necessary to evaluate relevant research, are committed to evaluating their counseling interventions and participate in a variety of professional development activities.

Administration

Mary Hermann

Department Chair

College Student Development and Counseling, Certificate (Post-baccalaureate graduate certificate)

Program accreditation

Council for Accreditation of Counseling and Related Academic Programs

Graduate program director

Mary A. Hermann, J.D., Ph.D. Chair, Department of Counselor Education mahermann@vcu.edu (804) 827-2626

Additional contact

Henry T. Clark, Ph.D. Senior associate dean for academic affairs htclark@vcu.edu (804) 828-3382

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

College Student Development and Counseling, Certificate (Post-baccalaureate graduate certificate)

Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Certificate	Fall	Feb 1	GRE or MAT
	Spring	Nov 1	
	Summer	Feb 1	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Master's degree in counseling or counselor education from a CACREPaccredited institution
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Interview may be required

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

Students who possess a master's degree in counseling from a CACREP-accredited program may elect to pursue the Post-baccalaureate Graduate Certificate in College Student Development and Counseling. This 18-hour program will prepare counselors and other student affairs professionals for work in post-secondary educational settings.

Student learning outcomes

 Professional orientation/professional identity/continuing education: Students display knowledge and understanding of the historical and philosophical foundations of the counseling profession, including counselor professional identity, and display necessary skills in applying this knowledge and understanding to professional practice.

- 2. Students demonstrate the ability to adhere to legal and ethical practice.
- 3. Students understand the importance of continuing education and are committed to seeking continuing education throughout their careers.
- 4. Helping relationships/group work/career development/wellness: Students display knowledge and understanding of counseling processes applied to both individuals and groups including knowledge of how to design, implement and evaluate programs related to academic, career and personal/social development of clients.
- Students display knowledge and skills related to responding to crises, emergencies and disasters.
- Students participate in the design, implementation and evaluation of programs that promote wellness as well as prevention and intervention services
- Human development/wellness: Students display knowledge of theories of learning, personality development, transitions and resilience, and use this information as a basis for facilitating optimal development and wellness.
- Social and cultural diversity/social justice and advocacy: Students display knowledge and understanding of diversity and equity issues and how these issues impact clients' academic, personal and career opportunities.
- Students display multicultural competencies including appropriate sensitivity, skills and advocacy in working with diverse clients.
- 10. Students display knowledge and understanding of the relationship between counseling programs and academic achievement including an understanding of factors that promote student success and work to close the achievement gap among disenfranchised groups.
- 11. Assessment: Students display knowledge and understanding of multiple factors that may affect personal, social and academic functioning, and they possesses knowledge and skills to identify, evaluate and implement appropriate needs assessments and consequent interventions.
- 12. Research: Students display knowledge and understanding of research and evaluation, including understanding of how data are used to inform decisions; students also display skills and professional practices in appropriate collection, analysis and use of data.
- 13. Leadership: Students display knowledge of issues that affect student affairs practice and demonstrate an understanding of leadership, organization and management practices that help institutions accomplish their missions.
- 14. Students advocate for policies, programs and services that are equitable and responsive to the unique needs of postsecondary students.
- 15. Students use and analyze multiple data sources, including institutional data, to make decisions about improving differentiated student programs and they develop measurable outcomes for student development activities.
- 16. Students collaborate with the postsecondary community to assist students and use postsecondary community resources to improve student learning and development.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 18 credit hours.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Supervised internship: Students must complete an internship of at least 600 clock hours in an approved setting.

Curriculum requirements

Courses	Credit hours
CLED 620 Student Development Services in Higher Education	3
CLED 672 Internship (600 clock hours of actual work in an	6
appropriate setting)	

EDUS 604 Adult Development	3
EDUS/CLED 631 American College and University	3
EDUS/CLED 633 Academic Leadership in Higher Education	3

Total graduate credit hours required (minimum)

ar graduate credit nours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Counselor Education, Master of Education (M.Ed.) with a concentration in college student development and counseling

Program accreditation

Council for Accreditation of Counseling and Related Academic Programs

Graduate program director

Mary A. Hermann, J.D., Ph.D. Chair, Department of Counselor Education mahermann@vcu.edu (804) 827-2626

Additional contact

Henry T. Clark, Ph.D. Senior associate dean for academic affairs htclark@vcu.edu (804) 828-3382

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Counselor Education, Master of Education (M.Ed.) with a concentration in school counseling

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Counselor Education, Master of Education (M.Ed.) with a concentration in college student development and counseling

		0			
Degree:	Semester(s)	De	adline	Test	
	of entry:	da	tes:	requirements:	
M.Ed.	Fall	Fel	b 1	GRE or MAT	
	Spring	No	v 1		
	Summer	Fel	b 1		

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Personal interview may be required
- 6. Satisfactory scores on the GRE or MAT

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The M.Ed. in Counselor Education with a concentration in college student development and counseling is a 48-credit-hour program designed to prepare counselors for higher education and community agencies throughout Virginia and the nation. The college student development and counseling concentration provides students with the specialized knowledge and skills necessary for employment as student affairs professionals in higher education settings. The program is accredited by the Council for Accreditation of Counseling and Related Programs and requires a minimum of two years of study to complete.

The faculty makes every effort to assist students in individualizing a graduate program to match their professional needs and interests. However, individualization takes place in an environment of legitimate constraints revolving around institutional, accreditation and licensure requirements. Faculty members view each program as more than simply an aggregate of courses, and students should plan all program work with their faculty advisers.

Student learning outcomes

Professional orientation/professional identity/continuing education

- Students display knowledge and understanding of the historical and philosophical foundations of the counseling profession, including counselor professional identity, and display necessary skills in applying this knowledge and understanding to professional practice.
- 2. Students demonstrate the ability to adhere to legal and ethical practice.

3. Students understand the importance of continuing education and are committed to seeking continuing education throughout their careers.

Helping relationships/group work/career development/wellness

- Students display knowledge and understanding of counseling processes applied to both individuals and groups including knowledge of how to design, implement and evaluate programs related to academic, career and personal/social development of clients.
- Students display knowledge and skills related to responding to crises, emergencies and disasters.
- Students participate in the design, implementation and evaluation of programs that promote wellness, as well as prevention and intervention services

Human development/wellness

Students display knowledge of theories of learning, personality development, transitions and resilience, and use this information as a basis for facilitating optimal development and wellness.

Social and cultural diversity/social justice and advocacy:

- Students display knowledge and understanding of diversity and equity issues and how these issues impact clients' academic, personal and career opportunities.
- Students display multicultural competencies including appropriate sensitivity, skills and advocacy in working with diverse clients.
- Students display knowledge and understanding of the relationship between counseling programs and academic achievement, including an understanding of factors that promote student success, and work to close the achievement gap among disenfranchised groups.

Assessment

Students display knowledge and understanding of multiple factors that may affect personal, social and academic functioning, and possesses knowledge and skills to identify, evaluate and implement appropriate needs assessments and consequent interventions.

Research

Students display knowledge and understanding of research and evaluation, including understanding of how data are used to inform decisions, and students display skills and professional practices in appropriate collection, analysis and use of data

Leadership

- Students display knowledge of issues that affect student affairs practice and demonstrate an understanding of leadership, organization and management practices that help institutions accomplish their missions.
- 2. Students advocate for policies, programs and services that are equitable and responsive to the unique needs of postsecondary students.
- Students use and analyze multiple data sources, including institutional data, to make decisions about improving differentiated student programs and students develop measurable outcomes for student development activities.
- Students collaborate with the postsecondary community to assist students and use postsecondary community resources to improve student learning and development.

Degree requirements

In addition to general <u>VCU Graduate School graduation requirements</u>, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 48
 credit hours.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- 3. Internship requirements: Students must complete approved internship.
- 4. Testing requirements: Students must provide acceptable score on the National Counselor Examination.

Curriculum requirements

Courses Credit hours

Foundations	12
Human development and learning	
EDUS 604 Adult Development	3
Cultural, historical and philosophical	
EDUS/CLED 631 American College and University	3
EDUS/CLED 633 Academic Leadership in Higher Education	3
Research	
EDUS 660 Research Methods in Education	3
Core courses	33
CLED 600 Introduction to Counseling	3
CLED 601 Theories of Counseling	3
CLED 602 Techniques of Counseling	3
CLED 603 Group Procedures in Counseling	3
CLED 605 Career Information and Exploration	3
CLED 606 Assessment Techniques for Counselors	3
CLED 607 Multicultural Counseling in Educational Settings	3
CLED 608 Practicum: College Student Development and Counseling	3
CLED 620 Student Development Services in Higher Education	3
CLED 672 Internship	6
Approved elective	3
Total graduate credit hours required (minimum)	48

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

$\label{eq:Degree candidacy requirements} \textbf{Degree candidacy requirements}$



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Students accepted into the counselor education program must make satisfactory progress toward their degrees. Students who earn unsatisfactory grades and/or exhibit unprofessional conduct may be terminated from the program. More

specific information about satisfactory academic progress can be found on this website at www.pubapps.vcu.edu/bulletins/graduate/?uid=10045&iid=30075.

Counselor Education, Master of Education (M.Ed.) with a concentration in school counseling

Program accreditation

Council for Accreditation of Counseling and Related Academic Programs

Graduate program director

Mary A. Hermann, J.D., Ph.D. Chair, Department of Counselor Education mahermann@vcu.edu (804) 827-2626

Additional contact

Henry T. Clark, Ph.D.

Senior associate dean for academic affairs

htclark@vcu.edu (804) 828-3382

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Counselor Education, Master of Education (M.Ed.) with a concentration in college student development and counseling

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Counselor Education, Master of Education (M.Ed.) with a concentration in school counseling			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.Ed.	Fall	Feb 1	GRE or MAT
	Spring	Nov 1	
	Summer	Feb 1	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Personal interview may be required
- 6. Satisfactory scores on the GRE or MAT

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The M.Ed. in Counselor Education with a concentration in school counseling is a 48-credit-hour program designed to prepare counselors for elementary, middle and high schools. The school counseling concentration leads to school counseling licensure and preparation for advanced graduate work at the post-master's level. The program is accredited by the Council for Accreditation of Counseling and Related Programs and requires a minimum of two years of study to complete.

The faculty makes every effort to assist students in individualizing a graduate program to match their professional needs and interests. However, individualization takes place in an environment of legitimate constraints revolving around institutional, accreditation and licensure requirements. Faculty members view each program as more than simply an aggregate of courses, and students should plan all program work with their faculty advisers.

For students who already have a master's degree in education, the 36 credit hours of program core courses in the school counseling concentration also will lead to recommendation for licensure as a school counselor. Students who wish to gain this licensure must meet with the department chair and file a plan of study. Although students holding master's degrees do not apply for admission to the graduate program, they must file the appropriate plan of study in order to qualify for the VCU-approved program of study. No course work taken more than seven years prior to applying for licensure as a school counselor will count toward meeting VCU's approved program course equivalents.

Student learning outcomes

Professional orientation/professional identity/continuing education

- Students display knowledge and understanding of the historical and philosophical foundations of the counseling profession, including counselor professional identity, and display necessary skills in applying this knowledge and understanding to professional practice.
- 2. Students demonstrate the ability to adhere to legal and ethical practice.
- Students understand the importance of continuing education and are committed to seeking continuing education throughout their careers.

Helping relationships/group work/career development/wellness

- Students display knowledge and understanding of counseling processes applied to both individuals and groups including knowledge of how to design, implement and evaluate programs related to academic, career and personal/social development of clients.
- Students display knowledge and skills related to responding to crises, emergencies and disasters.
- Students participate in the design, implementation and evaluation of programs that promote wellness, as well as prevention and intervention services.

Human development/wellness

Students display knowledge of theories of learning, personality development, transitions and resilience, and use this information as a basis for facilitating optimal development and wellness.

Social and cultural diversity/social justice and advocacy

- Students display knowledge and understanding of diversity and equity issues and how these issues impact clients' academic, personal and career opportunities.
- Students display multicultural competencies including appropriate sensitivity, skills and advocacy in working with diverse clients.
- Students display knowledge and understanding of the relationship between counseling programs and academic achievement, including an understanding of factors that promote student success, and work to close the achievement gap among disenfranchised groups.

Assessment

Students display knowledge and understanding of multiple factors that may affect personal, social and academic functioning, and possesses knowledge and skills to

identify, evaluate and implement appropriate needs assessments and consequent interventions.

Research

Students display knowledge and understanding of research and evaluation, including understanding of how data are used to inform decisions, and students display skills and professional practices in appropriate collection, analysis and use of data.

For school counseling concentration

- Students display knowledge of the professional models that guide the practice
 of school counseling and demonstrate the ability to articulate, model and
 advocate for appropriate school counselor duties and programs.
- Students display knowledge and understanding of the role of family-schoolcommunity collaboration on student development and strategies to enhance collaboration.

Leadership

Students display knowledge and understanding of leadership models and of the school counselor's role in school leadership; students display appropriate skills and dispositions for working in a leadership capacity in school counseling.

Degree requirements

In addition to general <u>VCU Graduate School graduation requirements</u>, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 48
 credit hours.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- 3. Internship requirements: Students must complete approved internship.
- 4. Testing requirements: Students must provide acceptable score on the National Counselor Examination.

Curriculum requirements

Courses	Credit hours
Foundations	9
Human development and learning	
EDUS 605 Child and Adolescent Development	3
Cultural, historical and philosophical (one of the following)	
EDUS 601 Philosophy of Education	3
EDUS 610 Social Foundations of Education	3
EDUS 612 Education and the World's Future	3
EDUS 614 Contemporary Educational Thought	3
EDUS 673 Seminar on Educational Issues, Ethics and Policy	3
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Research	
EDUS 660 Research Methods in Education	3
Core courses	36
CLED 600 Introduction to Counseling	3
CLED 601 Theories of Counseling	3
CLED 602 Techniques of Counseling	3
CLED 603 Group Procedures in Counseling	3
CLED 604 Practicum: School Counseling	3
CLED 605 Career Information and Exploration	3
CLED 606 Assessment Techniques for Counselors	3
CLED 607 Multicultural Counseling in Educational Settings	3
CLED 610 Counseling in Elementary and Middle Schools	3
CLED 621 Secondary School Counseling Seminar	3
CLED 672 Internship	6
Approved elective	3
• •	

Total graduate credit hours required (minimum)

48

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Students accepted into the counselor education program must make satisfactory progress toward their degrees. Students who earn unsatisfactory grades and/or exhibit unprofessional conduct may be terminated from the program. More specific information about satisfactory academic progress can be found on this website at www.pubapps.vcu.edu/bulletins/graduate/?uid=10045&iid=30075.

Education, Doctor of Philosophy (Ph.D.) with a concentration in counselor education and supervision

Graduate program director

Henry T. Clark, Ph.D.

Senior associate dean for academic affairs

htclark@vcu.edu (804) 828-3382

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Education, Doctor of Philosophy (Ph.D.) with a concentration in curriculum, culture and change

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational leadership

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational psychology

Education, Doctor of Philosophy (Ph.D.) with a concentration in research and evaluation

Education, Doctor of Philosophy (Ph.D.) with a concentration in special education and disability leadership

Education, Doctor of Philosophy (Ph.D.) with a concentration in sport leadership Education, Doctor of Philosophy (Ph.D.) with a concentration in urban services leadership

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Education, Doctor of Philosophy (Ph.D.) with a concentration in counselor education and supervision			
Semester(s)	Deadline	Test	
of entry:	dates:	requirements:	
Summer or fall	Nov 15 (early consideration)*	GRE	
	Semester(s) of entry:	Semester(s) Deadline of entry: dates: Summer or fall Nov 15 (early	

Special requirements: Students wishing full consideration for graduate assistantships should apply by the early consideration deadline.

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Master's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. A personal interview and writing sample (may be requested)
- 6. Professional vitae/resume
- 7. Satisfactory scores on the GRE

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The counselor education and supervision concentration is designed to prepare experienced, research-oriented master's-level counselors for academic positions focused on research, service, teaching and counselor education. Doctoral students will integrate theory, research and practice in areas of counselor supervision and training, counselor education and teaching, advanced counseling, diversity and multiculturalism, leadership, advocacy, and social justice.

Student learning outcomes

1. Complete an original research study: dissertation component – Student will design, implement, analyze and defend an original research study. Once a student passes the prospectus hearing, he or she will collect and analyze the data and finish writing the last two chapters of their dissertation. Students have a committee of a minimum of four faculty members. Typically, this consists of a chair, a methodologist, a subject-matter expert and an expert outside of the School of Education. Each committee member independently reviews the student's work. Once the dissertation defense has occurred, the committee discusses their thoughts on the quality of the student work. Once all members agree, the student is granted a Ph.D.; therefore, inter-rater reliability is extremely high.

- Apply skills in external setting: externship component Students will
 demonstrate their knowledge and skills in a professional placement in a
 school, agency or corporate setting. The faculty adviser and the externship
 site supervisor work together to evaluate the student.
- 3. Develop research knowledge and skills: research component Students will acquire the prerequisite skills essential to designing, conducting and interpreting qualitative and quantitative design research. Students will demonstrate this knowledge and skill set on a qualifying examination, which is independently evaluated by at least two faculty members. To address interrater reliability, if the two faculty members disagree on the student's level of knowledge, a third faculty member is called in to evaluate the student's responses on the qualifying examination. This exam is also graded "blindly," meaning that the evaluator does not know which student he or she is evaluating.
- 4. Develop in-depth knowledge in one area of study: concentration component Students will demonstrate in-depth knowledge and skills in an area of study that is congruent with their current or projected career goals. Content will differ according to chosen concentration.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- 1. Credit hour requirements: Students are required to complete a minimum of 48-54 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in three courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- 3. Externship requirement: Students must complete an approved externship.
- Examination requirements: Students must pass both a qualifying examination early in the program and a comprehensive examination near the end of the program.
- Dissertation requirements: Students must complete and defend a research dissertation.

Curriculum requirements

Courses	Credit hours
Foundation	6
EDUS 702 Foundations of Educational Research and Doctoral	3
Scholarship I	
EDUS 703 Foundations of Educational Research and Doctoral	3
Scholarship II	
Research	12
EDUS 608 Educational Statistics	3
EDUS 710 Educational Research Design	3
EDUS 711 Qualitative Methods and Analysis	3
Research elective	3
Externship	3
EDUS 700 Externship	3
Dissertation	9 (minimum)
EDUS 890 Dissertation Seminar	3
EDUS 899 Dissertation Research (minimum of 6 credit hours)	6 (minimum)
Concentration courses	22
CLED 720 Counselor Education Doctoral Seminar I	3
CLED 721 Counselor Education Doctoral Seminar II	3
CLED 730 Advanced Counseling Theories and Practicum	4
CLED 740 Supervision in Counseling	3
CLED 750 Advanced Group Counseling	3
CLED 760 Advanced Career Counseling and Development	3
CLED 810 Counselor Education Doctoral Internship	3

Total graduate credit hours required (minimum)

52

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Below is a link to the Doctoral Student Handbook: soe.vcu.edu/wp-content/uploads/sites/3436/2014/10/2014 PhD Handbook.pdf

Department of Educational Leadership

The mission of the department is to prepare reflective instructional leaders for K-12 schools and for literacy programs and corporate training centers. Through course work and other experiences, the program aims to turn out leaders who are able to develop positive school cultures through the use of communications skills and by appropriation of fiscal, material and human resources.

The department offers programs that lead to the M.Ed., Post-master's Certificate and Ph.D. in Education with a track in educational leadership. Individuals who complete one of those programs may qualify for endorsement by the Virginia Department of Education as administrator/supervisor. An optional track M.Ed. is offered for individuals in institutions of higher education and other settings who will benefit from the study of educational leadership but do not wish to seek positions as school administrators.

For more information consult the department's Web site at www.soe.vcu.edu/departments/el.

Administration

Charol Shakeshaft

Department Chair

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational leadership

Graduate program director

Henry T. Clark, Ph.D.

Senior associate dean for academic affairs

htclark@vcu.edu

(804) 828-3382

Additional contact

Whitney Sherman-Newcomb, Ph.D.
Concentration coordinator, educational leadership
whsherman@vcu.edu

(804) 828-1940

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Education, Doctor of Philosophy (Ph.D.) with a concentration in counselor education and supervision

Education, Doctor of Philosophy (Ph.D.) with a concentration in curriculum, culture and change

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational psychology

Education, Doctor of Philosophy (Ph.D.) with a concentration in research and evaluation

Education, Doctor of Philosophy (Ph.D.) with a concentration in special education and disability leadership

Education, Doctor of Philosophy (Ph.D.) with a concentration in sport leadership Education, Doctor of Philosophy (Ph.D.) with a concentration in urban services leadership

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational leadership				
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:	
Ph.D.	Summer or fall	Nov 15 (early consideration)	GRE	
		Feb 1 (final deadli	ne)	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Master's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. A personal interview and writing sample (may be requested)
- 6. Professional vitae/resume
- 7. Satisfactory scores on the GRE

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The educational leadership concentration is designed primarily for line administrative personnel in public school units. Emphasis is placed on providing leadership training for superintendents, building principals and assistant principals.

Student learning outcomes

- 1. Complete an original research study: dissertation component Student will design, implement, analyze and defend an original research study. Once a student passes the prospectus hearing, he or she will collect and analyze the data and finish writing the last two chapters of their dissertation. Students have a committee of a minimum of four faculty members. Typically, this consists of a chair, a methodologist, a subject-matter expert and an expert outside of the School of Education. Each committee member independently reviews the student's work. Once the dissertation defense has occurred, the committee discusses their thoughts on the quality of the student work. Once all members agree, the student is granted a Ph.D.; therefore, inter-rater reliability is extremely high.
- Apply skills in external setting: externship component Students will
 demonstrate their knowledge and skills in a professional placement in a
 school, agency or corporate setting. The faculty adviser and the externship
 site supervisor work together to evaluate the student.
- 3. Develop research knowledge and skills: research component Students will acquire the prerequisite skills essential to designing, conducting and interpreting qualitative and quantitative design research. Students will demonstrate this knowledge and skill set on a qualifying examination, which is independently evaluated by at least two faculty members. To address interrater reliability, if the two faculty members disagree on the student's level of knowledge, a third faculty member is called in to evaluate the student's responses on the qualifying examination. This exam is also graded "blindly," meaning that the evaluator does not know which student he or she is evaluating.
- 4. Develop in-depth knowledge in one area of study: concentration component Students will demonstrate in-depth knowledge and skills in an area of study that is congruent with their current or projected career goals. Content will differ according to chosen concentration.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 48-54 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in three courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- 3. Externship requirement: Students must complete an approved externship.
- Examination requirements: Students must pass both a qualifying examination early in the program and a comprehensive examination near the end of the program.
- Dissertation requirements: Students must complete and defend a research dissertation.

Curriculum requirements

Courses	Credit hours
Foundation	6
EDUS 702 Foundations of Educational Research and Doctoral	3
Scholarship I	
EDUS 703 Foundations of Educational Research and Doctoral	3
Scholarship II	

Research	12
Research	12
EDUS 608 Educational Statistics	3
EDUS 710 Educational Research Design	3
EDUS 711 Qualitative Methods and Analysis	3
Research elective	3
Externship	3
EDUS 700 Externship	3
Dissertation	9 (minimum)
EDUS 890 Dissertation Seminar	3
EDUS 899 Dissertation Research (minimum of 6 credit hours)	6 (minimum)
Concentration courses	19

Concentration courses	18
ADMS 701 Education Policy Research	3
ADMS 702 Educational Administration: Contemporary Theory and Practice	3
ADMS 703 Leadership for Social Justice and Equity in Education	3
ADMS 704 Equitability in the Distribution of School Financial Resources	3
ADMS 706 Leadership Perspectives on Learning	3
ADMS 707 The Politics of Education	3
Other courses selected in consultation with the adviser	

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Below is a link to the Doctoral Student Handbook: soe.vcu.edu/wp-content/uploads/sites/3436/2014/10/2014 PhD Handbook.pdf

Educational Leadership, Certificate in (Post-master's certificate)

Program accreditation

National Council for Accreditation of Teacher Education; Specialized Professional

Graduate program director

Cheryl C. Magill, Ph.D.

Interim chair, Department of Educational Leadership ccmagill@vcu.edu

(804) 828-1332

Additional contact

Henry T. Clark, Ph.D.

Senior associate dean for academic affairs

htclark@vcu.edu (804) 828-3382

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Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Educational Leadership, Certificate in (Post-master's certificate)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Certificate	Fall	Mar 15	GRE or MAT

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Must hold a master's degree in the field of education or a master's degree that meets the requirements to hold a teaching position
- 2. Have active teacher license
- 3. Have at least two years of school experience in an instructional personnel position that requires licensure in Virginia
- Three letters of recommendation addressing the student's potential for graduate study in education
- 5. Student's written statement concerning career interests
- 6. Transcripts of all previous college work

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The post-master's certificate is a 21-hour program for individuals who hold a master's degree in the field of education or a master's degree that meets the requirements to hold a teaching position, who have an active teaching license, and

who have at least two years of school experience in an instructional personnel position that requires licensure in Virginia.*

An end-of-program assessment is required. Individuals must meet technology standards approved by the Virginia Board of Education, and they must supply proof of child abuse and neglect recognition training. Individuals who successfully complete the program are eligible for endorsement as an administrator/supervisor K-12.

This program is delivered through an innovative, competency-based curriculum comprising a combination of face-to-face and online courses offered for one, two or three credits. The program features authentic real-time computer-simulated experiences imbedded in several courses throughout the program.

Please visit the Department of Educational Leadership's auto-advising webpage for program–specific application requirements.

*Virginia Board of Education licensing regulations require, in part, that applicants for administration/supervision endorsement have three years of successful, full-time experience in a public school or accredited nonpublic school in an instructional personnel position that requires licensure in Virginia.

Student learning outcomes

- Candidates demonstrate content knowledge: Candidates demonstrate content knowledge in educational leadership as evidenced by the School Leaders Licensure Assessment and the school law case study.
- Design, align, evaluate curriculum, guide learning: Candidates demonstrate the ability to develop a supervisory plan for classroom-based learning as evidenced by the clinical supervision model.
- Internship/clinical practice: Candidates demonstrate effective applications in internship/clinical practice as evidenced by the on-site supervisor evaluation.
- Assess application of content: Candidates demonstrate application of content as evidenced by the action research project.
- Assess management and community relations: Candidates demonstrate organizational management and community relations skills as evidenced by the educational intervention plan.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 21 credit hours.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- 3. Testing requirements: Must take the School Leaders Licensure Assessment for graduation

Curriculum requirements

Courses	Credit hours
ADMS 618 Leadership for Educational Change and Improvement	2
ADMS 622 Understanding Diversity and Leading for Social Justice	1
ADMS 623 Schooling as a Complex System	1
ADMS 624 Principals as Human Resource Agents	2
ADMS 625 Leadership for Individualized Learning	2
ADMS 626 Internal/External Relations and Communications	2
ADMS 627 Enhancing and Supporting Instruction	2
ADMS 628 Cultural Inheritance of Schools	1
ADMS 629 The Business of Schools	2
ADMS 631 Evidence-based Decision-making	1
ADMS 633 Multiple Dimensions of Leadership	2
ADMS 670 Administrative Internship I*	1
ADMS 671 Administrative Internship II**	1
ADMS 675 Administrative Internship III***	1
ADMS 627 Enhancing and Supporting Instruction ADMS 628 Cultural Inheritance of Schools ADMS 629 The Business of Schools ADMS 631 Evidence-based Decision-making ADMS 633 Multiple Dimensions of Leadership ADMS 670 Administrative Internship I* ADMS 671 Administrative Internship II**	2 1 2 1 2 1 2

Assessment no credit

Individuals must take the SLLA or any other assessment required by the Virginia Board of Education for endorsement as a school principal/supervisor K-12.

Total graduate credit hours required (minimum)

2

- *ADMS 670 must be taken in the first semester of enrollment in the program.
- **ADMS 671 is taken in the next-to-last semester of enrollment in the program.
- ***ADMS 675 is taken in the last semester of enrollment in the program.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Educational Leadership, Master of Education (M.Ed.) with a concentration in administration and supervision

Graduate program director

Autumn T. Cypres, Ed.D. Chair, Department of Educational Leadership atcypres@vcu.edu

(804) 828-1332

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Educational Leadership, Master of Education (M.Ed.) with a concentration in leadership studies

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Educational Leadership, Master of Education (M.Ed.) with a concentration in administration and supervision			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.Ed.	Fall	Feb 1	GRE or MAT

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- Transcripts of all previous college work
- 5. Satisfactory scores on the GRE or MAT
- At least two years of experience in a school setting in an instructional personnel position that requires licensure in Virginia

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The administration and supervision concentration of the M.Ed. in Educational Leadership is a 33-credit-hour program that prepares individuals to fill positions as reflective leaders for schools. Applicants are expected to have at least two years of experience in a school setting in an instructional personnel position that requires licensure in Virginia. An end-of-program assessment is required. Individuals must meet technology standards approved by the Virginia Board of Education, and they must supply proof of child abuse and neglect recognition training. Individuals who successfully complete the program are eligible for endorsement as an administrator/supervisor K-12.

This program is delivered through an innovative, competency-based curriculum comprising a combination of face-to-face and online courses offered for one, two or three credits. The program features authentic real-time computer-simulated experiences imbedded in several courses throughout the program.

Please visit the Department of Educational Leadership's auto-advising webpage for program–specific application requirements.

Student learning outcomes

- Candidates demonstrate content knowledge in educational leadership as evidenced by the School Leaders Licensure Assessment and the school law case study.
- Develop supervisory plan for learning: Candidates demonstrate the ability to develop a supervisory plan for classroom-based learning as evidenced by the clinical supervision model.
- Internship/clinical practice: Candidates demonstrate effective applications in internship/clinical practice as evidenced by the on-site supervisor evaluation.
- Assess ability to support student learning and development: Candidates
 demonstrate ability to support student learning and development as evidenced
 by the leadership to support student learning assessment.

- 5. Assess application of content: Candidates demonstrate application of content as evidenced by the action research project.
- Assess management and community relations: Candidates demonstrate
 organizational management and community relations skills as evidenced by
 the educational intervention plan.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 33
 credit hours.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Internship requirement: Students in the administration and supervision concentration must complete an internship sequence.
- Testing requirements: Students in the administration and supervision concentration must take the School Leaders Licensure Assessment.
- For endorsement, individuals must meet the technology standards approved by the Virginia Board of Education, and they must supply proof of child abuse and neglect recognition training.

Curriculum requirements

Courses	Credit hours
Required courses	30
ADMS 618 Leadership for Educational Change and	2
Improvement	
ADMS 622 Understanding Diversity and Leading for Social	1
Justice	
ADMS 623 Schooling as a Complex System	1
ADMS 624 Principals as Human Resource Agents	2
ADMS 625 Leadership for Individualized Learning	2
ADMS 626 Internal/External Relations and Communications	2
ADMS 627 Enhancing and Supporting Instruction	2
ADMS 628 Cultural Inheritance of Schools	1
ADMS 629 The Business of Schools	2
ADMS 631 Evidence-based Decision-making	1
ADMS 633 Multiple Dimensions of Leadership	2
ADMS/TEDU 647 Educational Technology for School Leaders	3
ADMS 670 Administrative Internship I*	1
ADMS 671 Administrative Internship II**	1
ADMS 675 Administrative Internship III***	1
EDUS 660 Research Methods in Education	3
TEDU 615 Curriculum Development	3
Elective (selected with approval of adviser)	3

sessment no credit

Individuals must take the SLLA or any other assessment required by the Virginia Board of Education for endorsement as a school principal/supervisor K-12.

Total graduate credit hours required (minimum)

33

- *ADMS 670 must be taken in the first semester of enrollment in the program.
- **ADMS 671 is taken in the next-to-last semester of enrollment in the program.
- ***ADMS 675 is taken in the last semester of enrollment in the program.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing

master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Educational Leadership, Master of Education (M.Ed.) with a concentration in leadership studies

Graduate program director

Autumn T. Cypres, Ed.D. Chair, Department of Educational Leadership (804) 828-1332 atcypres@vcu.edu

Additional contact

Henry T. Clark, Ph.D. Senior associate dean for academic affairs htclark@vcu.edu (804) 828-3382

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Educational Leadership, Master of Education (M.Ed.) with a concentration in administration and supervision

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Educational Leadership, Master of Education (M.Ed.) with a concentration in leadership studies			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.Ed.	Fall	Feb 1	GRE or MAT
	Spring	Nov 1	
	Summer	Feb 1	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work

- 5. Satisfactory scores on the GRE or MAT
- 6. At least two years of experience in a school setting in an educational setting Please visit the Department of Educational Leadership's auto-advising webpage for program-specific application requirements.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The leadership studies concentration of the M.Ed. in Educational Leadership is a 30-credit-hour program for individuals who hold or expect to hold leadership positions in educational organizations but who do not wish to obtain the administration/supervision endorsement from the Virginia Department of Education. Applicants are expected to have at least two years of experience in an educational setting. The program includes 15 hours of credit in required courses and 15 hours in a concentrated series of electives chosen with approval of the student's adviser.

This program is delivered through an innovative, competency-based curriculum comprising a combination of face-to-face and online courses offered for one, two or three credits. The program features authentic real-time computer-simulated experiences imbedded in several courses throughout the program.

Student learning outcomes

- Candidates demonstrate content knowledge in educational leadership as evidenced by the School Leaders Licensure Assessment and the school law case study.
- Develop supervisory plan for learning: Candidates demonstrate the ability to develop a supervisory plan for classroom-based learning as evidenced by the clinical supervision model.
- Internship/clinical practice: Candidates demonstrate effective applications in internship/clinical practice as evidenced by the on-site supervisor evaluation.
- Assess ability to support student learning and development: Candidates
 demonstrate ability to support student learning and development as evidenced
 by the leadership to support student learning assessment.
- 5. Assess application of content: Candidates demonstrate application of content as evidenced by the action research project.
- Assess management and community relations: Candidates demonstrate
 organizational management and community relations skills as evidenced by
 the educational intervention plan.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

 Credit hour requirements: Students are required to complete a minimum of 30 credit hours. Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.

Curriculum requirements

Courses	Credit hours
Required courses	15
ADMS 622 Understanding Diversity and Leading for Social Justice	1
ADMS 623 Schooling as a Complex System or ADMS 628 Cultural Inheritance of Schools*	1*
ADMS 624 Principals as Human Resource Agents	2
ADMS 625 Leadership for Individualized Learning	2
ADMS 626 Internal/External Relations and Communications	2
ADMS 629 The Business of Schools	2
ADMS 633 Multiple Dimensions of Leadership	2
EDUS 660 Research Methods in Education	3
Elective	15
Any planned, concentrated series of courses from ADLT,	
ADMS, EDUS, PADM and TEDU designed by student or student group and adviser to meet the needs of student or student group	

Degree candidacy requirements

*Students select one of these two courses.

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

30

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Leadership, Doctor of Education (Ed.D.)

Graduate program director

Cheryl C. Magill, Ph.D. Interim chair, Department of Educational Leadership (804) 828-1332 ccmagill@vcu.edu

Additional contact

Autumn T. Cypres, Ed.D. Chair, Department of Educational Leadership atcypres@vcu.edu (804) 828-1940

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Leadership, Doctor of Education (Ed.D.)				
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:	
Ed.D.	Summer	Feb. 15	MAT	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Master's degree in an appropriate discipline
- 2. Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- Professional vita or resume that addresses colleges or universities attended, educational degrees held, including major/minor, work history in chronological order, beginning with current position, leadership experiences, professional involvement, and awards and honors
- 6. Evidence of at least three years of successful leadership experience including evidence of leadership accomplishment for each of three areas: (1) leadership for learning; (2) leadership for equity and (3) leadership for accountability. [This evidence might be a combination of artifacts, testimonials, reports, newspaper documentation or other evidence that provides a description of your ability to lead for learning, equity and accountability. Evidence can be in hard copy format or on a website specifically created for this purpose. (We are seeking candidates who have successfully addressed the issues of student and/or organizational learning, equitable treatment and outcomes, and accountability to students.)]
- 7. At least a 50th percentile score on the Miller Analogies Test

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The purpose of the Ed.D. in Leadership program is to provide leaders with authentic experiences, appropriate knowledge and skills, and opportunities for reflection that will enable them to succeed in organizational leadership positions. Three analytic lenses — equity, accountability and learning environments — will guide learning activities and enable students from varying backgrounds to consider learning through common perspectives.

Students will examine cases built around enduring questions in the field and examine these questions through three lenses: learning, equity and accountability. Questions will be explored through contrasting evidence from economic, systems, legal, human relations and political data and perspectives. The program content and assessments will correlate to common curriculum elements across perspectives.

Program features

The Ed.D. in Leadership is a 48-hour, 36-month program. Based upon principles of adult learning, the program has the following features:

- 1. Practitioner-oriented
- 2. Competitive admissions
- Midcareer entry
- 4. Prescribed curriculum, with extensive use of case-study approach
- 5. Learning-community based
- 6. Problem-oriented pedagogy and curriculum
- Collaborative instruction involving VCU full-time faculty and area practitioners
- 8. Applied research dissertation as a culminating project
- Varied meeting formats: weekends, evenings, monthly, weekday blocks of time, summer full-day institutes, face-to-face and online

Student learning outcomes

- 1. At the beginning of the Ed.D. program, participants create an online digital portfolio site that consists of two elements: (a) a blog that provides a venue for reflection on their learning and (b) a collection of artifacts that attest to their learning as a leader, with each artifact specifically related to their involvement in the program. Participants populate both elements of the portfolio at their own discretion throughout the first year. In the concluding month of the first year in the program, participants individually present their portfolios to a review team of two faculty members who rate the quality of the educational experience as reflected in each participant's portfolio.
- 2. During the second year of the Ed.D. program, participants work in teams to complete evaluations of programs currently in use in their workplaces. Teams confer with workplace supervisors to develop goals and objectives, review literature related to the program they are evaluating, design an evaluation study, collect and analyze data, and develop conclusions and recommendations. The final products include a formal report, an executive summary and two presentations: one to the workplace supervisor and a second to the other program participants.
- Graduate students must be approved for degree candidacy status by the Graduate School to be eligible to receive a graduate degree. Participants who meet the following criteria are eligible for candidacy status, upon recommendation of their faculty advisers.
- 4. Capstone project: Candidates collaborate in teams of three or four to design, implement, analyze and defend a study of an issue identified by an organizational client. Participating organizational clients describe the issue that they propose for study, and affinity groups of three or four candidates coalesce around issues of personal academic and professional interest, familiarity and expertise. Under the supervision of a faculty member with appropriate academic credentials, each team of students develops a response to the proposal of that team's preferred organizational client. The team's response contains a projected research design and timeline. If this is accepted on behalf of the organizational client by the appropriate representative (referred to as the client in the following), an informal contract agreement is signed. Candidates commence review of extant literature related to the issue and gather preliminary data utilizing sources identified by the client. This

preliminary phase culminates in the defense of a capstone proposal to the team's committee. Capstone committee members are graduate faculty members. Each committee consists of a chair, who is the supervisor of the team's initial research activities, and two additional members. Once the capstone proposal is defended, the team begins to collect its own current data pertaining to the issue identified by the client. Each capstone committee member independently reviews the work of the team as work proceeds. After one semester of the capstone project, each team presents and defends to the capstone committee and the client separately an interim report, which may include a revised timeline. If this interim report is approved, each team proceeds to complete the collection of data, analyze the data, draw conclusions on the basis of the data analysis and prepares both an executive summary and a full report on the client's issue. Toward the end of the second semester of the capstone project, each team presents and defends both the executive summary and the full report to the capstone committee and the client separately.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 48
 credit hours.
- 2. Grade requirements: Receipt of a grade of C or below in three courses constitutes automatic dismissal from the program: Courses with a grade below C cannot be used to satisfy degree requirements.
- Capstone requirements: Students must complete and defend a team-based capstone research project.

Curriculum requirements

Courses	Credit hours
EDLP 700 Effective Learning Networks	3
EDLP 702 Understanding Self as Leader: Theory and Data Analysis	2
EDLP 703 Understanding Self as Leader: Practical Applications	1
EDLP 704 Frameworks for Decision-making: Legal Perspectives	3
EDLP 705 Frameworks for Decision-making: Ethical Perspectives	3
EDLP 708 Leadership Presence	3
EDLP 709 Equity and Leadership	3
EDLP 711 Evidence-informed Perspectives on Practice I	3
EDLP 712 Planning for Sustainable Change I	3
EDLP 713 Evidence-informed Perspectives on Practice II	3
EDLP 714 Planning for Sustainable Change II	3
EDLP 715 Principles for Professional Writing I	3
EDLP 716 Principles for Professional Writing II	3
EDLP 717 Communicating Research Findings	3
EDLP 790 Capstone Development	3
EDLP 798 Capstone Plan Implementation	3
EDLP 799 Capstone Completion	3

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Ed.D. in Leadership program handbook: soe.vcu.edu/files/2013/07/ EdD Handbook 8 31 2012.pdf

Department of Foundations of Education

The Department of Foundations of Education provides multidisciplinary, liberal education perspectives that undergird all programs in the school. Our contribution is based on the premise that the preparation of effective educational practitioners requires fundamental, deep understanding of the broader perspectives that are represented by research and theory in psychological, cultural, philosophical, historical and ethical areas of inquiry. As such, the department provides an essential link between practice and theory that makes effective reflection and decision making possible. By facilitating a rich contextual understanding of contemporary educational issues and practices, the department enhances the ability of educators to be reflective decision makers who make effective use of complex judgments and critical thinking. Our goal is to prepare educators for intelligent, responsible leadership in a variety of educational careers and settings for teaching, research, administration and policy-making.

The department plays an integral part in the Ph.D. in Education program by teaching required courses in urban education and research methods and other elective courses, by active participation on dissertation committees, and by directing the Research and Evaluation Track of the program. The department also has responsibility for the Metropolitan Educational Research Consortium (MERC), a partnership between VCU and seven Richmond area school divisions to conduct and disseminate action research.

For more information consult the department's Web site at www.soe.vcu.edu/departments/fe.

Administration

James H. McMillan Department Chair

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational psychology

Graduate program director

Henry T. Clark, Ph.D. Senior associate dean for academic affairs htclark@vcu.edu (804) 828-3382

Additional contact

Kathleen M. Cauley, Ph.D.
Concentration coordinator, educational psychology
kmcauley@vcu.edu
(804) 8281332

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Education, Doctor of Philosophy (Ph.D.) with a concentration in counselor education and supervision

Education, Doctor of Philosophy (Ph.D.) with a concentration in curriculum, culture and change

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational leadership

Education, Doctor of Philosophy (Ph.D.) with a concentration in research and evaluation

Education, Doctor of Philosophy (Ph.D.) with a concentration in special education and disability leadership

Education, Doctor of Philosophy (Ph.D.) with a concentration in sport leadership Education, Doctor of Philosophy (Ph.D.) with a concentration in urban services leadership

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational psychology				
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:	
Ph.D.	Summer or fall	Nov 15 (early consideration)	GRE	
		Feb 1 (final deadli	ine)	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Baccalaureate or master's degree in psychology, educational psychology or related discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. A personal interview and writing sample (may be requested)
- 6. Professional vitae/resume
- 7. Satisfactory scores on the GRE

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The educational psychology concentration is designed to train research-oriented doctoral students who want to promote the success of students in educational

environments. Doctoral students will integrate theory and research in the areas of developmental psychology, cognition, social psychology and motivation, assessment, exceptional learners, and diversity to better study learning in schools or school-like settings.

Student learning outcomes

- 1. Complete an original research study: dissertation component Student will design, implement, analyze and defend an original research study. Once a student passes the prospectus hearing, he or she will collect and analyze the data and finish writing the last two chapters of their dissertation. Students have a committee of a minimum of four faculty members. Typically, this consists of a chair, a methodologist, a subject-matter expert and an expert outside of the School of Education. Each committee member independently reviews the student's work. Once the dissertation defense has occurred, the committee discusses their thoughts on the quality of the student work. Once all members agree, the student is granted a Ph.D.; therefore, inter-rater reliability is extremely high.
- Apply skills in external setting: externship component Students will
 demonstrate their knowledge and skills in a professional placement in a
 school, agency or corporate setting. The faculty adviser and the externship
 site supervisor work together to evaluate the student.
- 3. Develop research knowledge and skills: research component Students will acquire the prerequisite skills essential to designing, conducting and interpreting qualitative and quantitative design research. Students will demonstrate this knowledge and skill set on a qualifying examination, which is independently evaluated by at least two faculty members. To address interrater reliability, if the two faculty members disagree on the student's level of knowledge, a third faculty member is called in to evaluate the student's responses on the qualifying examination. This exam is also graded "blindly," meaning that the evaluator does not know which student he or she is evaluating.
- 4. Develop in-depth knowledge in one area of study: concentration component Students will demonstrate in-depth knowledge and skills in an area of study that is congruent with their current or projected career goals. Content will differ according to chosen concentration.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 48-54 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in three courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- 3. Externship requirement: Students must complete an approved externship.
- Examination requirements: Students must pass both a qualifying examination early in the program and a comprehensive examination near the end of the program.

Credit hours

 Dissertation requirements: Students must complete and defend a research dissertation

Curriculum requirements

Courses	Credit nour
Foundation	6
EDUS 702 Foundations of Educational Research and Doctoral Scholarship I	3
EDUS 703 Foundations of Educational Research and Doctoral Scholarship II	3
Research	12
EDUS 608 Educational Statistics	3
EDUS 710 Educational Research Design	3
EDUS 711 Qualitative Methods and Analysis	3
Research elective	3

Externship	3
EDUS 700 Externship	3
Dissertation	9 (minimum
EDUS 890 Dissertation Seminar	3
EDUS 899 Dissertation Research (minimum of 6 credit hours)	6 (minimum)
Concentration courses (see list below)	21
Total graduate credit hours required (minimum)	51
For students admitted with baccalaureate degree	
Foundation	15
EDUS 605 Child and Adolescent Development	3
EDUS 609 Learning and Motivation in Education	3
EDUS 660 Research Methods in Education	3
PSYC 612 Seminar in Motivation	3
STAT/SOCY 508 Introduction to Social Statistics	3
Concentration	21
EDUS 620 Human Development in Education	3
EDUS 621 Motivation in Education	3
EDUS 662 Educational Measurement and Evaluation	3
EDUS 720 Seminar in Cognition and School Learning	3
EDUS 721 Advanced Seminar in Social Processes in Education	3
EDUS 797 Directed Research	3
Elective selected in consultation with adviser	3
For students admitted with a master's degree	21
EDUS 620 Human Development in Education	3
EDUS 621 Motivation in Education	3
EDUS 662 Educational Measurement and Evaluation	3
EDUS 720 Seminar in Cognition and School Learning	3
EDUS 721 Advanced Seminar in Social Processes in Education	3
EDUS 797 Directed Research	3
Elective selected in consultation with adviser	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Courses

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Below is a link to the Doctoral Student Handbook: soe.vcu.edu/wp-content/uploads/sites/3436/2014/10/2014 PhD Handbook.pdf

Education, Doctor of Philosophy (Ph.D.) with a concentration in research and evaluation

Graduate program director

Henry T. Clark, Ph.D. Senior associate dean for academic affairs htclark@vcu.edu (804) 828-3382

Additional contact

Lisa M. Abrams, Ph.D. Chair, Department of Foundations of Education lmabrams@vcu.edu (804) 828-1332

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Education, Doctor of Philosophy (Ph.D.) with a concentration in counselor education and supervision

Education, Doctor of Philosophy (Ph.D.) with a concentration in curriculum, culture and change

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational leadership

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational psychology

Education, Doctor of Philosophy (Ph.D.) with a concentration in special education and disability leadership

Education, Doctor of Philosophy (Ph.D.) with a concentration in sport leadership Education, Doctor of Philosophy (Ph.D.) with a concentration in urban services leadership

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Education, Doctor of Philosophy (Ph.D.) with a concentration in research and evaluation			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Ph.D.	Summer or fall	Nov 15 (early consideration)	GRE
		Feb 1 (final deadli	ne)

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Master's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. A personal interview and writing sample (may be requested)
- 6. Professional vitae/resume
- Satisfactory scores on the GRE

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The research and evaluation concentration is designed primarily for individuals with responsibility for conducting research and evaluation projects in and for agencies and educational organizations. Emphasis in this concentration is placed on developing proficiency in both quantitative and qualitative methods of inquiry, providing students with a breadth of methods to study varied educational and social research questions. Students may select a focus in either research or evaluation.

Student learning outcomes

- 1. Complete an original research study: dissertation component Student will design, implement, analyze and defend an original research study. Once a student passes the prospectus hearing, he or she will collect and analyze the data and finish writing the last two chapters of their dissertation. Students have a committee of a minimum of four faculty members. Typically, this consists of a chair, a methodologist, a subject-matter expert and an expert outside of the School of Education. Each committee member independently reviews the student's work. Once the dissertation defense has occurred, the committee discusses their thoughts on the quality of the student work. Once all members agree, the student is granted a Ph.D.; therefore, inter-rater reliability is extremely high.
- Apply skills in external setting: externship component Students will
 demonstrate their knowledge and skills in a professional placement in a
 school, agency or corporate setting. The faculty adviser and the externship
 site supervisor work together to evaluate the student.
- 3. Develop research knowledge and skills: research component Students will acquire the prerequisite skills essential to designing, conducting and interpreting qualitative and quantitative design research. Students will demonstrate this knowledge and skill set on a qualifying examination, which is independently evaluated by at least two faculty members. To address interrater reliability, if the two faculty members disagree on the student's level of knowledge, a third faculty member is called in to evaluate the student's responses on the qualifying examination. This exam is also graded "blindly," meaning that the evaluator does not know which student he or she is evaluating.
- Develop in-depth knowledge in one area of study: concentration component –
 Students will demonstrate in-depth knowledge and skills in an area of study
 that is congruent with their current or projected career goals. Content will
 differ according to chosen concentration.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- 1. Credit hour requirements: Students are required to complete a minimum of 48-54 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in three courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- 3. Externship requirement: Students must complete an approved externship.
- Examination requirements: Students must pass both a qualifying examination early in the program and a comprehensive examination near the end of the program.
- Dissertation requirements: Students must complete and defend a research dissertation.

Curriculum requirements

Courses	Credit hours
Foundation	6
EDUS 702 Foundations of Educational Research and Doctoral Scholarship I	3
EDUS 703 Foundations of Educational Research and Doctoral Scholarship II	3
Research	12
EDUS 608 Educational Statistics	3
EDUS 710 Educational Research Design	3
EDUS 711 Qualitative Methods and Analysis	3
Research elective	3
Externship	3
EDUS 700 Externship	3
Dissertation	9 (minimum)
EDUS 890 Dissertation Seminar	3
EDUS 899 Dissertation Research (minimum of 6 credit hours)	6 (minimum)
Concentration courses (select six courses from the appropriate area)	18
Research	
EDUS 790 Educational Research Seminar	3
NURS 772 Qualitative Research Design and Analysis	3
PPAD 711 Seminar in Public Policy I	3
PPAD 721 Survey of Applied Research Methods in Public Policy	3
SCMA 643 Applied Multivariate Methods	3
SOCY/PADM 605 Survey Research Methods	3
Other courses selected in consultation with the adviser	3
Evaluation	
EDUS 661 Educational Evaluation: Models and Designs	3
EDUS 662 Educational Measurement and Evaluation	3
EDUS 790 Educational Research Seminar	3
PADM 627 Workshop in Policy Analysis and Evaluation	3
SOCY/PADM 605 Survey Research Methods	3
Other courses selected in consultation with the adviser	3
Total graduate credit hours required (minimum)	48

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's

academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Below is a link to the Doctoral Student Handbook: soe.vcu.edu/wp-content/uploads/sites/3436/2014/10/2014 PhD Handbook.pdf

Department of Special Education and Disability Policy

The mission of the Department of Special Education and Disability Policy is to prepare skilled, effective professionals who can meet the educational needs of children and youth with disabilities and their families through graduate degree programs, discover new instructional and service delivery strategies through an ongoing program of research, and share information on these strategies to a wide audience through collaborative relationships with children and youth with disabilities, their families, educators, local, state and federal government agencies, and other professionals throughout the commonwealth and across the nation.

The department offers extended teacher preparation programs that allow students to prepare for professional roles as teachers of students with emotional disturbance, learning disabilities, or mental retardation. These five-year programs culminate in the simultaneous awarding of both a bachelor's degree from the College of Humanities and Sciences and a Master of Teaching degree from the School of Education.

At the graduate level, the department offers five Master of Education programs. Successful completion of one of the degree programs leads to endorsement in early childhood special education, emotional disturbance, learning disabilities, mental retardation or severe disabilities. In addition, the department offers a Ph.D. in Education with an emphasis on Special Education and Disability Policy.

For more information consult the department's Web site at www.soe.vcu.edu/departments/sedp.

Administration

John J. Kregel

Professor and Department Chair

Autism Spectrum Disorders, Certificate in (Postbaccalaureate graduate certificate)

Graduate program director

Dawn R. Hendricks, Ph.D.
Department of Special Education and Disability Policy
autisminfo@ycu.edu

Additional contact

Henry T. Clark, Ph.D. Senior associate dean for academic affairs htclark@vcu.edu (804) 828-3382

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Autism Spectrum Disorders, Certificate in (Post-baccalaureate graduate certificate)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Certificate	Fall	Mar 15	The state of the s
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Bachelor's degree in an appropriate discipline including education, social work, psychology or human services
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The post-baccalaureate graduate Certificate in Autism Spectrum Disorders is designed to prepare personnel to support individuals with autism spectrum disorders in the educational setting from early intervention through adult services. The purpose of the certificate is to provide the wide range of competencies necessary for the provision of effective educational programming. The course sequence enables personnel to develop comprehensive knowledge and experience in assessment, teaching strategies and curriculum development. The certificate is geared toward teachers, potential teachers and related service personnel. However, it is available to all professionals working in the human service setting who wish to gain expertise in this area.

All applicants must hold a bachelor's degree in any area related to education, social work, psychology or human services. Participants are required to earn 12 graduate credit hours as outlined below. Upon successful completion of the certificate program, participants will be able to:

- Describe the primary and secondary characteristics of ASD and the impact on communication, socialization, sensory responses, patterns of behavior and learning style throughout the lifespan.
- Understand the concerns of families of individuals with ASD and describe strategies and provide resources to help address these concerns.
- 3. Understand and apply theories and research that form the basis of curriculum development and instructional practice.
- Assess student ability and develop individualized programs that use evidence-based practice to support and enhance learning across environments and across areas of development and need.
- Describe the behavior of individuals with ASD in terms of its function and identify how to provide positive behavioral support in order to replace existing problem behavior or prevent the development of new problem behaviors.
- Provide environmental supports, structure and technology adaptations to provide optimal learning and independence for individuals with ASD across environments

The four autism spectrum disorder courses can also be completed by students who do not wish to earn the post-baccalaureate certificate. In this case, admission to the VCU Graduate School is not required. Individual student needs and preferences determine the best way for the student to proceed.

Student learning outcomes

- Participants understand the field as an evolving and changing discipline based on philosophies, evidence-based principles and theories, relevant laws and policies, diverse and historical points of view, and human issues that have historically influenced and continue to influence the field of special education and the education and treatment of individuals with ASD. Participants understand how these influence professional practice, including assessment, instructional planning, implementation and program evaluation.
- 2. Participants understand the characteristics of those with ASD and the educational implications. This includes an understanding of:
 - Core and associated characteristics of individuals with developmental disabilities/autism spectrum disorders
 - Medical aspects and implications for learning for individuals with developmental disabilities/autism spectrum disorders
 - Co-existing conditions and ranges that exist at a higher rate than in the general population
 - Different ways of learning and the impact of academic and social abilities, attitudes, interests and values on instruction
- Participants demonstrate knowledge of evidence-based practices selecting, adapting and using instructional strategies and materials according to characteristics of the individual with ASD. Participants demonstrate knowledge of evidence-based practices designed to target communication, social, behavior, sensory and academic needs.
- 4. Participants understand how to develop and implement comprehensive, longitudinal individualized programs in collaboration with team members. Participants demonstrate knowledge of instructional and assistive technology that can be integrated into the educational program. Participants understand how to plan systematic instruction based on learner characteristics, interests and ongoing assessment use.
- 5. Participants demonstrate knowledge of the components of assessment for individuals with developmental disabilities/autism spectrum disorders including both formal and informal assessments. Participants understand the need to assess individual strengths, skills and learning styles.
- 6. Participants understand the importance of collaboration with school personnel and families and demonstrate knowledge of related skills. Participants understand how to communicate effectively with families of individuals with ASD. Participants understand the value of observing, evaluating and providing feedback to paraeducators who work under their supervision.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 12 graduate credit hours.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.

Curriculum requirements

Courses	Credit ho
SEDP 532 Understanding Autism Spectrum Disorder	3
SEDP 634 Assessment, Curriculum and Teaching Methods for	3
Autism Spectrum Disorder	
SEDP 635 Supporting Behavior and Social Skills for Autism	3
Spectrum Disorder	
SEDP 638 Instructional Design and Field Experience for Autism	3
Spectrum Disorder	

Total graduate credit hours required (minimum)

12

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Disability Leadership, Certificate in (Post-baccalaureate graduate certificate)

Graduate program director

Additional contact

Janet H. Willis Program specialist jhorsely@vcu.edu (804) 828-0073

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Disability leadership, Certificate in (Post-baccalaureate graduate certificate)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Certificate	Fall	Mar 15	
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- Completion of the Va-LEND application and submission to Janet Willis by June 1 to begin classes in the fall semester

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Certificate in Disability Leadership is a 12-hour certificate program designed to prepare health professionals, special educators and other professionals in related disciplines in the field of childhood neurodevelopmental disabilities to be leaders in the health care system. The program provides a 12- to 24-month curriculum of didactic and Web-based courses, interactive seminars, clinical and community-based practica, a family mentorship experience and planned grassroots- and systems-level policy activities.

The certificate is earned by completing the Virginia Leadership Education in Neurodevelopmental Disabilities interdisciplinary training program. Va-LEND is a collaboration among the School of Education (Partnership for People with Disabilities), the VCU School of Medicine (Department of Pediatrics) and the Virginia Department of Health (Title V Program). The LEND curriculum emphasizes all aspects of neurodevelopmental and related disabilities, the social environment (including ethnic and cultural issues), the interdisciplinary approach (systems of care), leadership (advocacy and public policy as well as administration) and research. Following completion of the program, the trainees will be able to serve as leaders in the field of child health and neurodevelopmental disabilities.

Student learning outcomes

 Students will demonstrate an understanding of the nature and range of neurodevelopmental disabilities.

- Students will demonstrate an understanding of the team approach to serving individuals with neurodevelopmental disabilities and their families.
- Students will demonstrate an understanding of community services and resources available to individuals with neurodevelopmental disabilities and their families.
- Students will demonstrate an understanding of their role as advocates for individuals with neurodevelopmental disabilities and their families.
- Students will be involved in a leadership role with an organization serving individuals with neurodevelopmental disabilities and their families.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 12 credit hours.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.

Curriculum requirements

Courses

Courses	Crean nou
IDDS 600 Interdisciplinary Studies in Developmental Disabilities: Teamwork in Serving Persons with Developmental Disabilities	3
IDDS 602 Leadership in Developmental Disabilities	2
IDDS 603 Clinical and Community Service for Children with	3
Neurodevelopmental Disabilities	
IDDS 672 Practicum in Disability Leadership	4

Total graduate credit hours required (minimum)

12

Credit hours

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Education, Doctor of Philosophy (Ph.D.) with a concentration in special education and disability leadership

Graduate program director

Henry T. Clark, Ph.D.

Senior associate dean for academic affairs

htclark@vcu.edu

(804) 828-3382

Additional contact

Kevin S. Sutherland, Ph.D.

Concentration coordinator, special education and disability leadership kssuther@ycu.edu

(804) 828-1332

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Education, Doctor of Philosophy (Ph.D.) with a concentration in counselor education and supervision

Education, Doctor of Philosophy (Ph.D.) with a concentration in curriculum, culture and change

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational leadership

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational psychology

Education, Doctor of Philosophy (Ph.D.) with a concentration in research and evaluation

Education, Doctor of Philosophy (Ph.D.) with a concentration in sport leadership Education, Doctor of Philosophy (Ph.D.) with a concentration in urban services leadership

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Education, Doctor of Philosophy (Ph.D.) with a concentration in special education and disability leadership Degree: Semester(s) Deadline Test of entry: dates: requirements: Ph.D. Summer or fall Nov 15 (early GRE consideration) Feb 1 (final deadline)

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Master's degree in an appropriate discipline
- 2. Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. A personal interview and writing sample (may be requested)
- 6. Professional vitae/resume
- 7. Satisfactory scores on the GRE

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website

and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The special education and disability leadership concentration is designed primarily for individuals employed in leadership positions in the field of special education. Emphasis in this concentration is placed on developing in-depth knowledge about topics as they pertain to personnel development, research, issues and policies in special education.

Student learning outcomes

- 1. Complete an original research study: dissertation component Student will design, implement, analyze and defend an original research study. Once a student passes the prospectus hearing, he or she will collect and analyze the data and finish writing the last two chapters of their dissertation. Students have a committee of a minimum of four faculty members. Typically, this consists of a chair, a methodologist, a subject-matter expert and an expert outside of the School of Education. Each committee member independently reviews the student's work. Once the dissertation defense has occurred, the committee discusses their thoughts on the quality of the student work. Once all members agree, the student is granted a Ph.D.; therefore, inter-rater reliability is extremely high.
- Apply skills in external setting: externship component Students will
 demonstrate their knowledge and skills in a professional placement in a
 school, agency or corporate setting. The faculty adviser and the externship
 site supervisor work together to evaluate the student.
- 3. Develop research knowledge and skills: research component Students will acquire the prerequisite skills essential to designing, conducting and interpreting qualitative and quantitative design research. Students will demonstrate this knowledge and skill set on a qualifying examination, which is independently evaluated by at least two faculty members. To address interrater reliability, if the two faculty members disagree on the student's level of knowledge, a third faculty member is called in to evaluate the student's responses on the qualifying examination. This exam is also graded "blindly," meaning that the evaluator does not know which student he or she is evaluating.
- 4. Develop in-depth knowledge in one area of study: concentration component Students will demonstrate in-depth knowledge and skills in an area of study that is congruent with their current or projected career goals. Content will differ according to chosen concentration.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 48-54 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in three courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- 3. Externship requirement: Students must complete an approved externship.
- Examination requirements: Students must pass both a qualifying examination early in the program and a comprehensive examination near the end of the program.
- Dissertation requirements: Students must complete and defend a research dissertation.

Curriculum requirements

Courses	Credit hours
Foundation	6
EDUS 702 Foundations of Educational Research and Doctoral Scholarship I	3
EDUS 703 Foundations of Educational Research and Doctoral Scholarship II	3
Research	12
EDUS 608 Educational Statistics	3
EDUS 710 Educational Research Design	3
EDUS 711 Qualitative Methods and Analysis	3
Research elective	3
Externship	3
EDUS 700 Externship	3
Dissertation	9 (minimum)
EDUS 890 Dissertation Seminar	3
EDUS 899 Dissertation Research (minimum of 6 credit hours)	6 (minimum)
Concentration courses	18
SEDP 705 Seminar on Disability Policy	3
SEDP 706 Personnel Development in Special Education	3
SEDP 707 Critical Issues in Special Education	3
SEDP 708 Designing, Funding and Conducting Research in Special Education	3
SEDP 709 Directed Readings in Special Education	3
Other courses selected in consultation with the adviser	3
Total graduate credit hours required (minimum)	48

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Below is a link to the Doctoral Student Handbook: soe.vcu.edu/wp-content/uploads/sites/3436/2014/10/2014_PhD_Handbook.pdf

Special Education, Master of Education (M.Ed.) with a concentration in early childhood

Program accreditation

National Council for Accreditation of Teacher Education; Council for Exceptional Children

Graduate program director

Colleen A. Thoma, Ph.D.

Chair, Department of Special Education and Disability Policy cathoma@vcu.edu (804) 827-2653

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Special Education, Master of Education (M.Ed.) with a concentration in general education

Special Education, Master of Education (M.Ed.) with a concentration in severe disabilities

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Special Education, Master of Education (M.Ed.) with a concentration in early childhood			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.Ed.	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work

Additionally, there are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the <u>Student Services Center</u> section on the School of Education website for current testing requirements.

Applicants who do not have a provisional or professional collegiate teaching license in special education must take SEDP 630 Trends in Special Education as a prerequisite course.

Applicants who hold bachelor's degrees in areas other than special education must complete a review process with program faculty as part of the admissions process.

Admission to clinical experiences in schools requires a background check and fingerprinting.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Education in Special Education program prepares graduates for work in one of three areas: early childhood, severe disabilities or general education. Applicants who do not already hold a teaching license must meet both licensure and degree requirements prior to the awarding of the Master of Education degree unless exempted as a professional from another discipline. Students should plan carefully with their adviser to ensure that the appropriate courses and experiences are completed. Successful completion of the degree program leads to endorsement in early childhood special education or severe disabilities.

The Master of Education in Special Education program with an early childhood concentration is a sequentially planned series of courses and clinical experiences designed to prepare individuals to work with young children, from birth through age 5, with developmental disabilities and their families. The courses are delivered using a hybrid of online and face-to-face formats. The program is learner-centered, innovative, interactive and collaborative. Through online discussions and face-to-face meetings with faculty members, community partners, student peers and program graduates, the ECSE teacher candidates have multiple opportunities to engage in interactive, proactive and dynamic dialogues.

Successful completion of the degree program qualifies students for teacher licensure with endorsement in early childhood special education by the Virginia Department of Education. Students are prepared to intervene with infants and young children representing a wide range of abilities, including those at risk for developmental delays and those at risk for severe disabilities. As a result of training, students will be prepared to serve children and families in diverse and high-need communities in a variety of early intervention roles. The program can be completed in five semesters of full-time study or six semesters of part-time study.

In addition to course work, candidates will create an electronic portfolio that will showcase their knowledge, skills and dispositions in the special education early childhood curriculum.

Student learning outcomes

- Demonstrate content knowledge in special education: Candidates demonstrate content knowledge in special education as evidenced by the final portfolio and case-study paper.
- Effectively plan instruction: Candidates demonstrate that they can effectively plan classroom-based instruction or activities for other roles as special educators as evidenced by the UDL/collaboration unit plan.
- Effectively apply knowledge, skills and dispositions (clinical experience):
 Candidates demonstrate knowledge, skills and dispositions are applied effectively in practice as evidenced by the clinical evaluation continuum.
- Effect on student learning: Candidates demonstrate effects on student learning as evidenced by the unit plan with curriculum-based measure – secondary.
- Candidates demonstrate CEC standards proficiency: Candidates further demonstrate proficiency on CEC competencies as evidenced by the assessing a child/IEP assignment, the multicultural poster and paper, and the functional behavior assessment/behavior intervention plan.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 37 credit hours.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.

Curriculum requirements

Courses	Credit hour
Foundations	6
EDUS 605 Child and Adolescent Development, EDUS 607/ PSYC 607 Advanced Educational Psychology for Elementary Teachers or EDUS 673 Seminar on Educational Issues, Ethics and Policy (choose one)	3
EDUS 660 Research Methods in Education	3
Core courses	8
ECSE 500 Language/Communication Intervention for Young Children with Disabilities	3
ECSE 542 Family/Professional Partnerships	2
SEDP 631 Classroom Management and Behavior Support for Students With Disabilities	3
Concentration courses	23
ECSE 541 Educational Foundations for Collaboration and Universally Designed Learning	3
ECSE 601 Assessment of Infants and Young Children with Disabilities	3
ECSE 602 Instructional Programming for Infants and Young Children with Disabilities	3
ECSE 603 Integrated Early Childhood Programs I	2
ECSE 604 Early Literacy and Augmentative Communication	3
ECSE 672 Internship in Early Development and Intervention	2
ECSE 700 Externship	4
SEDP 641 Independent Study	3
Total graduate credit hours required (minimum)	37

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Special Education, Master of Education (M.Ed.) with a concentration in general education

Program accreditation

National Council for Accreditation of Teacher Education; Council for Exceptional Children

Graduate program director Colleen A. Thoma, Ph.D.

Chair, Department of Special Education and Disability Policy cathoma@vcu.edu (804) 827-2653

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Special Education, Master of Education (M.Ed.) with a concentration in early childhood

Special Education, Master of Education (M.Ed.) with a concentration in severe disabilities

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Special Education, Master of Education (M.Ed.) with a concentration in general education				
Degree:	Semester(s)	Deadline	Test	
	of entry:	dates:	requirements:	
M.Ed.	Fall	Mar 15	GRE or MAT	
	Spring	Nov 1		
	Summer	Mar 15		

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Interview

Additionally, there are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the Student Services Center section on the School of Education website for current testing requirements.

Applicants who do not have a provisional or professional collegiate teaching license in special education must take SEDP 630 Trends in Special Education as a prerequisite course.

Applicants who hold bachelor's degrees in areas other than special education must complete a review process with program faculty as part of the admissions process.

Admission to clinical experiences in schools requires a background check and fingerprinting.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Education in Special Education program prepares graduates for work in one of three areas: early childhood, severe disabilities or general education. Applicants who do not already hold a teaching license must meet both licensure and degree requirements prior to the awarding of the Master of Education degree unless exempted as a professional from another discipline. Students should plan carefully with their adviser to ensure that the appropriate courses and experiences are completed. Successful completion of the degree program leads to endorsement in early childhood special education or severe disabilities.

The online Master of Education in Special Education general education concentration, which can lead to an endorsement in the special education general curriculum is designed to prepare graduates with the professional knowledge and skills needed to work in a variety of settings.

- General education classrooms (where children with special needs are being collaboratively taught)
- 2. Resource, modified resource or collaborative resource rooms
- 3. Self-contained settings or classrooms in varied urban, suburban or rural areas
- 4. Residential programs
- 5. Various community environments

Special training is provided in teaching reading and language, behavior management, and the use of interactive strategies that teach positive social skills. Candidates are prepared to work with students in completing a variety of transitions, such as from special education to the general education classroom or from high school to employment and independent living.

Through online course work, the general education concentration will encompasses broad concepts of education, research, development, related disciplines and special education to build a foundation of professional knowledge and understanding. Specialized courses develop the intensive diagnostic, remedial, decision-making and consultative skills and understandings required of a professional in a special education-general education setting, including the ability to recognize educational and social problems, to formulate effective individualized instructional interventions using a variety of methodologies and modifications, to incorporate accommodations and transitions into program plans and to consult productively with appropriate personnel in the development of maximum educational opportunities for students with high-incidence disabilities. In addition to course work, candidates will create an electronic portfolio that will showcase their knowledge, skills and dispositions in the special education general curriculum.

The program offers candidates the opportunity to complete clinical placements in their own classroom or school with approval from VCU faculty and supervision by trained personnel. Placement opportunities for clinical experiences include a range of public and private schools and mental health programs that allow graduate students to select field experiences that are consistent with their professional goals. Previous teaching experience is valued, but not required. Students will have the opportunity to complete a practicum in addition to the externship. When students complete the program, they are eligible for licensure by the Virginia Department of Education with an endorsement to teach students enrolled in special education, general curriculum in grades K-12. Candidates are offered the option of taking a full-time or an on-the-job externship for a semester.

Student learning outcomes

- Demonstrate content knowledge in special education: Candidates demonstrate content knowledge in special education as evidenced by the final portfolio and case-study paper.
- Effectively plan instruction: Candidates demonstrate that they can effectively plan classroom-based instruction or activities for other roles as special educators as evidenced by the UDL/collaboration unit plan.
- Effectively apply knowledge, skills and dispositions (clinical experience):
 Candidates demonstrate knowledge, skills and dispositions are applied effectively in practice as evidenced by the clinical evaluation continuum.
- Effect on student learning: Candidates demonstrate effects on student learning as evidenced by the unit plan with curriculum-based measure – secondary.
- Candidates demonstrate CEC standards proficiency: Candidates further demonstrate proficiency on CEC competencies as evidenced by the assessing a child/IEP assignment, the multicultural poster and paper, and the functional behavior assessment/behavior intervention plan.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- 1. Credit hour requirements: Students are required to complete a minimum of 37 credit hours
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.

Curriculum requirements

Courses	Credit hours
Foundations	3
EDUS 607/PSYC 607 Advanced Educational Psychology for	3
Elementary Teachers	
Research	3
EDUS 660 Research Methods in Education	3
Core courses	31-32
SEDP 501 Characteristics of Students with High Incidence Disabilities	3
	2
SEDP 531 Educational Foundations for Collaboration and Universally Designed Learning	3
SEDP 533 Educational Assessment of Individuals with Diverse	3
Learning Needs	3
SEDP 601 Methods I: Teaching Students in Special Education -	3
General Education	
SEDP 602 Methods II: Teaching Students in Special Education -	2
General Education	
SEDP 611 Secondary Education and Transition Planning	2
SEDP/TEDU 619 Multicultural Perspectives in Education	3
SEDP 631 Classroom Management and Behavior Support for Students with Disabilities	3
SEDP 700 Externship	3
TEDU 561 Reading Foundations: Sociological/Psychological	3
Perspectives	
TEDU 566 Diagnosis and Remediation in Reading or SEDP 603	4 or 3
Theories, Assessment and Practices in Reading for Students	
With High Incidence Disabilities	

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing

37-38

master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Special Education, Master of Education (M.Ed.) with a concentration in severe disabilities

Program accreditation

National Council for Accreditation of Teacher Education; Council for Exceptional Children

Graduate program director

Colleen A. Thoma, Ph.D.

Chair, Department of Special Education and Disability Policy cathoma@vcu.edu (804) 827-2653

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Special Education, Master of Education (M.Ed.) with a concentration in general

Special Education, Master of Education (M.Ed.) with a concentration in early childhood

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Special Education, Master of Education (M.Ed.) with a concentration in severe disabilities				
Degree:	Semester(s)	Deadline	Test	
	of entry:	dates:	requirements:	
M.Ed.	Fall	Mar 15	GRE or MAT	
	Spring	Nov 1		
	Summer	Mar 15		

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work

Additionally, there are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the Student Services Center section on the School of Education website for current testing requirements.

Applicants who do not have a provisional or professional collegiate teaching license in special education must take SEDP 630 Trends in Special Education as a prerequisite course.

Applicants who hold bachelor's degrees in areas other than special education must complete a review process with program faculty as part of the admissions process.

Admission to clinical experiences in schools requires a background check and fingerprinting.

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It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The Master of Education in Special Education program prepares graduates for work in one of three areas: early childhood, severe disabilities or general education. Applicants who do not already hold a teaching license must meet both licensure and degree requirements prior to the awarding of the Master of Education degree unless exempted as a professional from another discipline. Students should plan carefully with their adviser to ensure that the appropriate courses and experiences are completed. Successful completion of the degree program leads to endorsement in early childhood special education or severe disabilities.

The Master of Education in Special Education severe disabilities concentration is designed to prepare teachers to work with students in grades K-12 in public school settings. Throughout the program, emphasis is placed on person-centered planning, school and community inclusion, transdisciplinary teamwork and the role of the family.

Courses address physical and medical management issues, functional assessment strategies, longitudinal curriculum planning, systematic instruction, augmentative and alternative communication systems, assistive technology, transition from school to adulthood, positive behavioral supports and the special needs of students with autism or physical, sensory and health-related disabilities.

All core courses are offered through the Virginia Severe Disabilities Consortium, but are accessed through VCU. Students enrolled in the program complete a field-based externship in their school (if they currently serve students with severe disabilities) or in one of the many public schools in the Richmond area. Six one-credit-hour externship experiences are spread throughout the course of study and are designed to meet the students' needs for professional development.

All candidates are required to submit a final portfolio as the capstone requirement of the program. Successful completion of the 42-credit-hour program results in eligibility for Virginia endorsement in special education, adapted curriculum in addition to the Master of Education degree.

Student learning outcomes

- Demonstrate content knowledge in special education: Candidates demonstrate content knowledge in special education as evidenced by the final portfolio and case-study paper.
- Effectively plan instruction: Candidates demonstrate that they can effectively plan classroom-based instruction or activities for other roles as special educators as evidenced by the UDL/collaboration unit plan.
- Effectively apply knowledge, skills and dispositions (clinical experience):
 Candidates demonstrate knowledge, skills and dispositions are applied effectively in practice as evidenced by the clinical evaluation continuum.
- Effect on student learning: Candidates demonstrate effects on student learning as evidenced by the unit plan with curriculum-based measure – secondary.
- Candidates demonstrate CEC standards proficiency: Candidates further demonstrate proficiency on CEC competencies as evidenced by the assessing a child/IEP assignment, the multicultural poster and paper, and the functional behavior assessment/behavior intervention plan.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- 1. Credit hour requirements: Students are required to complete a minimum of 42 credit hours
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.

Curriculum requirements

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Courses	Credit hours
Foundations	6
EDUS 603 Seminar in Child Growth and Development, EDUS 605 Child and Adolescent Development, EDUS 607/PSYC 607 Advanced Educational Psychology for Elementary Teachers or EDUS 673 Seminar on Educational Issues, Ethics and Policy (choose one)	3
EDUS 660 Research Methods in Education	3
Concentration courses	36
ECSE 700 Externship	6
IDDS 600 Interdisciplinary Studies in Developmental Disabilities: Teamwork in Serving Persons with Developmental Disabilities	3
SEDP 531 Educational Foundations for Collaboration and Universally Designed Learning	3
SEDP 600 Language/Communication Intervention for Young Children and Individuals with Severe Disabilities	3
SEDP 610 Teaching Strategies for Students With Severe Disabilities	3
SEDP 612 Assessment and Curriculum for Students with Severe Disabilities	3
SEDP 631 Classroom Management and Behavior Support for Students With Disabilities	3
SEDP 632 Transition Strategies for Students with Disabilities	3
SEDP 651 Topics in Education (characteristics of students with severe disabilities)	3
SEDP 658 Educating Students with Physical and Sensory Disabilities	3
TEDU 561 Reading Foundations: Sociological/Psychological Perspectives	3
Successful completion of SEDP 630 Trends in Special Education if candidate does not hold eligibility for a Virginia provisional special education teaching license	
Successful completion of portfolio requirement	

Total graduate credit hours required (minimum)

42

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Department of Teaching and Learning

The Department of Teaching and Learning is committed to excelling in the initial and continuing preparation of teachers for the commonwealth, with particular emphasis on early childhood through secondary education in diverse settings; to collaborating with colleagues in educational agencies; to applying research about learning in classrooms; to undertaking scholarly endeavors that examine learning and teaching processes; and to providing technical assistance to special populations and service to school divisions and agencies.

The department values:

- Providing the highest quality teaching and opportunities for learning.
- Integrating academic disciplines, professional studies and clinical experiences as program components for student learning.
- Collaborating in the preparation of teachers and in the continuing development of faculty both within the university and in public and private educational settings.
- Enabling teachers and intending teachers to work effectively with students from diverse populations and those with special needs.
- Helping intending teachers become effective decision makers and practicing teachers refine their decision-making skills in the roles for which they are preparing.
- Effectively modeling the use of technology to enhance and foster learning.
- Incorporating, among others, developmental, cognitive and functional approaches and content areas in the preparation of personnel in early, middle, secondary and special education programs.
- Serving the university through faculty participation in institutional committees and task forces, programs, and supportive research and service institutes and centers within the university.
- Serving the community through technical assistance, workshops, consulting education activities, Professional Development Schools and other partnerships.

The Department of Teaching and Learning houses the following degree and certificate granting programs.

Master of Education in Curriculum and Instruction

Master of Education in Reading

Master of Teaching

Post-baccalaureate Graduate Certificate in Instructional Technology

Post-baccalaureate Graduate Certificate in Teaching (Secondary)

Post-master's Certificate in Reading Specialist

Ph.D. in Education

For more information consult the department's website at www.soe.vcu.edu/departments/tl.

Administration

Michael D. Davis

Professor and Department Chair

Adult Learning, Master of Education (M.Ed.) with a concentration in adult literacy

Graduate program director

Robin R. Hurst, Ed.D. Adult learning program coordinator rrhurst@vcu.edu (804) 828-8021

Additional contact

Henry T. Clark, Ph.D. Senior associate dean for academic affairs htclark@vcu.edu (804) 828-3382

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Adult Learning, Master of Education (M.Ed.) with a concentration in human resource development

Adult Learning, Master of Education (M.Ed.) with a concentration in teaching and learning with technology

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Adult Learning, Master of Education (M.Ed.) with a concentration in adult literacy			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.Ed.	Fall	Feb 1	GRE or MAT
	Spring	Nov 1	
	Summer	Feb 1	

Applicants must meet all general admission requirements of the VCU Graduate School.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Education in Adult Learning is a 33-credit hour program of study that prepares individuals for a broad range of positions related to the education of adult learners. Students choose one of three elective concentrations in adult literacy, human resource development, or teaching and learning with technology. Graduates are found in major corporations, higher education, health care organizations, state and federal agencies, nonprofit and community-based organizations and human services agencies. Admission to the program is predicated on the "whole person" concept, taking into account life experience, academic record, references and the reasons for the student's interest in the program. An interview with the program adviser is recommended prior to admission. Successful applicants will have sufficient prior work experience with adults as learners to enable them to bring relevant work experience into the classroom learning environment.

The program provides a foundation in educational research methods and a strong core of seven courses in the theory and practice of adult learning, including emphasis in development of facilitation skills, as well as the design and delivery of adult learning programs. Upon completion of the foundation and core courses, students choose one of three concentration areas: adult literacy, human resource development (learning in the workplace) or teaching and learning with technology. The last course in the program, a capstone seminar in action learning, reunites students from all three concentrations for a comprehensive synthesis experience as they work in action learning teams to solve a real problem of strategic importance to an organization in the community.

A unique feature of the program is the learning portfolio, maintained in an online journal (blog) format. The learning portfolio, in combination with the capstone seminar, replaces a comprehensive examination requirement. For the portfolio, students write reflective blog entries during each of the core and concentration courses. During the program, selected assignments are posted to the blog to document personal growth and learning over time. At the end of the program, students create a synthesis of their learning in an essay format or through creation of a digital story. The portfolio serves as a demonstration of the graduate's abilities to a prospective employer and can be added to a student's resume. Throughout, the program utilizes students' experiences in working with adults as learners to unite theory with practice and emphasizes 21st-century technologies for teaching and learning.

Student learning outcomes

- In earning the M.Ed. in Adult Learning, students demonstrate the ability to articulate a personal philosophy of adult learning practice that enables them to work effectively as leaders and facilitators to improve adult learning, as evidenced on the final program learning assessment.
- M.Ed. in Adult Learning students will demonstrate their ability to integrate their knowledge of all facets of adult learning to have a significant impact on the practices, culture and learning environments of the organizations in which they work.
- Students will demonstrate their knowledge of the nature, function and scope of adult learning during the capstone experience of the program.
- Students in this program will demonstrate their awareness of the processes of adult learning and development during their capstone experience.
- Students will acknowledge the influence of technology in adult learning, as evidenced in their final program learning assessment.
- Student will demonstrate their awareness of educational research in the adult learning field, as evidenced on the research on instructional strategy and organizational change strategy analysis rubrics.

Degree requirements

Students must meet all general VCU Graduate School graduation requirements.

Curriculum requirements

Courses	Credit hours
Foundation course	3
EDUS 660 Research Methods in Education	3
Core courses	21
ADLT 601 Adult Learning and Development	3
ADLT 606 Design and Delivery of Adult Learning Programs	3
ADLT 610 Consulting Skills in Adult Learning Environments	3
ADLT 612 Learning in Groups and Teams	3
ADLT 636 Capstone Seminar in Action Learning	3
ADLT 650 Adult Literacy and Diversity	3
ADLT 688 Lifespan Issues for Adults with Learning and	3
Behavioral Disabilities	
Adult literacy concentration electives	9
Students choose an elective concentration of nine credit hours in adult literacy. These courses are designed to be taken after the student completes foundation and core courses, with the exception of ADLT 636, the capstone seminar.	
READ 602 Literacy for Adults	3
TEDU/ENGL/LING 552 Teaching English as a Second	3
Language	
TEDU 681 Investigations and Trends in Teaching (issues in adult literacy)	3
Total graduate credit hours required (minimum)	33

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Adult Learning, Master of Education (M.Ed.) with a concentration in human resource development

Graduate program director

Robin R. Hurst, Ed.D. Adult learning program coordinator rrhurst@vcu.edu (804) 828-8021

Additional contact

Henry T. Clark, Ph.D. Senior associate dean for academic affairs htclark@vcu.edu (804) 828-3382

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Adult Learning, Master of Education (M.Ed.) with a concentration in adult literacy Adult Learning, Master of Education (M.Ed.) with a concentration in teaching and learning with technology

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Adult Learning, Master of Education (M.Ed.) with a concentration in human resource development			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.Ed.	Fall	Feb 1	GRE or MAT
	Spring	Nov 1	
	Summer	Feb 1	

Applicants must meet all general admission requirements of the VCU Graduate School.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Education in Adult Learning is a 33-credit hour program of study that prepares individuals for a broad range of positions related to the education of adult learners. Students choose one of three elective concentrations in adult literacy, human resource development, or teaching and learning with technology. Graduates are found in major corporations, higher education, health care organizations, state and federal agencies, nonprofit and community-based organizations and human services agencies. Admission to the program is predicated on the "whole person" concept, taking into account life experience, academic record, references and the reasons for the student's interest in the program. An interview with the program adviser is recommended prior to admission. Successful applicants will have sufficient prior work experience with adults as learners to enable them to bring relevant work experience into the classroom learning environment.

The program provides a foundation in educational research methods and a strong core of seven courses in the theory and practice of adult learning, including emphasis in development of facilitation skills, as well as the design and delivery of adult learning programs. Upon completion of the foundation and core courses, students choose one of three concentration areas: adult literacy, human resource development (learning in the workplace) or teaching and learning with technology. The last course in the program, a capstone seminar in action learning, reunites students from all three concentrations for a comprehensive synthesis experience as they work in action learning teams to solve a real problem of strategic importance to an organization in the community.

A unique feature of the program is the learning portfolio, maintained in an online journal (blog) format. The learning portfolio, in combination with the capstone seminar, replaces a comprehensive examination requirement. For the portfolio, students write reflective blog entries during each of the core and concentration courses. During the program, selected assignments are posted to the blog to document personal growth and learning over time. At the end of the program, students create a synthesis of their learning in an essay format or through creation of a digital story. The portfolio serves as a demonstration of the graduate's abilities to a prospective employer and can be added to a student's resume. Throughout, the program utilizes students' experiences in working with adults as learners to unite theory with practice and emphasizes 21st-century technologies for teaching and learning.

Student learning outcomes

- In earning the M.Ed. in Adult Learning, students demonstrate the ability to articulate a personal philosophy of adult learning practice that enables them to work effectively as leaders and facilitators to improve adult learning, as evidenced on the final program learning assessment.
- M.Ed. in Adult Learning students will demonstrate their ability to integrate their knowledge of all facets of adult learning to have a significant impact on the practices, culture and learning environments of the organizations in which they work.
- Students will demonstrate their knowledge of the nature, function and scope of adult learning during the capstone experience of the program.
- Students in this program will demonstrate their awareness of the processes of adult learning and development during their capstone experience.
- Students will acknowledge the influence of technology in adult learning, as evidenced in their final program learning assessment.
- Student will demonstrate their awareness of educational research in the adult learning field, as evidenced on the research on instructional strategy and organizational change strategy analysis rubrics.

Degree requirements

Students must meet all general VCU Graduate School graduation requirements.

Curriculum requirements

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Courses	Credit hours
Foundation course	3
EDUS 660 Research Methods in Education	3
Core courses	21
ADLT 601 Adult Learning and Development	3
ADLT 606 Design and Delivery of Adult Learning Programs	3
ADLT 610 Consulting Skills in Adult Learning Environments	3
ADLT 612 Learning in Groups and Teams	3
ADLT 636 Capstone Seminar in Action Learning	3
ADLT 650 Adult Literacy and Diversity	3
ADLT 688 Lifespan Issues for Adults with Learning and Behavioral Disabilities	3
Human resource development concentration electives	9
Students choose an elective concentration of nine credit hours in	

human resource development. These courses are designed to be

taken after the student completes foundation and core courses, with the exception of ADLT 636, the capstone seminar.

ADLT 620 Human Resource Development Overview	3
ADLT 623 Organizational Learning	3
ADLT 625 Change Strategies for HRD Practitioners	3

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

33

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Adult Learning, Master of Education (M.Ed.) with a concentration in teaching and learning with technology

Graduate program director

Robin R. Hurst, Ed.D. Adult learning program coordinator rrhurst@vcu.edu (804) 828-8021

Additional contact

Henry T. Clark, Ph.D. Senior associate dean for academic affairs htclark@vcu.edu (804) 828-3382

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Adult Learning, Master of Education (M.Ed.) with a concentration in adult literacy Adult Learning, Master of Education (M.Ed.) with a concentration in human resource development

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Adult Learning, Master of Education (M.Ed.) with a concentration in teaching and learning with technology			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.Ed.	Fall	Feb 1	GRE or MAT
	Spring	Nov 1	
	Summer	Feb 1	

Applicants must meet all general admission requirements of the VCU Graduate

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

> General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Education in Adult Learning is a 33-credit hour program of study that prepares individuals for a broad range of positions related to the education of adult learners. Students choose one of three elective concentrations in adult literacy, human resource development, or teaching and learning with technology. Graduates are found in major corporations, higher education, health care organizations, state and federal agencies, nonprofit and community-based organizations and human services agencies. Admission to the program is predicated on the "whole person" concept, taking into account life experience, academic record, references and the reasons for the student's interest in the program. An interview with the program adviser is recommended prior to admission. Successful applicants will have sufficient prior work experience with adults as learners to enable them to bring relevant work experience into the classroom learning environment.

The program provides a foundation in educational research methods and a strong core of seven courses in the theory and practice of adult learning, including emphasis in development of facilitation skills, as well as the design and delivery of adult learning programs. Upon completion of the foundation and core courses, students choose one of three concentration areas: adult literacy, human resource development (learning in the workplace) or teaching and learning with technology. The last course in the program, a capstone seminar in action learning, reunites students from all three concentrations for a comprehensive synthesis experience as they work in action learning teams to solve a real problem of strategic importance to an organization in the community.

A unique feature of the program is the learning portfolio, maintained in an online journal (blog) format. The learning portfolio, in combination with the capstone seminar, replaces a comprehensive examination requirement. For the portfolio, students write reflective blog entries during each of the core and concentration courses. During the program, selected assignments are posted to the blog to document personal growth and learning over time. At the end of the program, students create a synthesis of their learning in an essay format or through creation of a digital story. The portfolio serves as a demonstration of the graduate's abilities to a prospective employer and can be added to a student's resume. Throughout, the program utilizes students' experiences in working with adults as learners to unite

theory with practice and emphasizes 21st-century technologies for teaching and learning.

Student learning outcomes

- 1. In earning the M.Ed. in Adult Learning, students demonstrate the ability to articulate a personal philosophy of adult learning practice that enables them to work effectively as leaders and facilitators to improve adult learning, as evidenced on the final program learning assessment.
- M.Ed. in Adult Learning students will demonstrate their ability to integrate their knowledge of all facets of adult learning to have a significant impact on the practices, culture and learning environments of the organizations in which they work.
- Students will demonstrate their knowledge of the nature, function and scope of adult learning during the capstone experience of the program.
- Students in this program will demonstrate their awareness of the processes of adult learning and development during their capstone experience.
- Students will acknowledge the influence of technology in adult learning, as evidenced in their final program learning assessment.
- Student will demonstrate their awareness of educational research in the adult learning field, as evidenced on the research on instructional strategy and organizational change strategy analysis rubrics.

Degree requirements

Students must meet all general VCU Graduate School graduation requirements.

Curriculum requirements

Courses	Credit hours
Foundation course	3
EDUS 660 Research Methods in Education	3
Core courses	21
ADLT 601 Adult Learning and Development	3
ADLT 606 Design and Delivery of Adult Learning Programs	3
ADLT 610 Consulting Skills in Adult Learning Environments	3
ADLT 612 Learning in Groups and Teams	3
ADLT 636 Capstone Seminar in Action Learning	3
ADLT 650 Adult Literacy and Diversity	3
ADLT 688 Lifespan Issues for Adults with Learning and Behavioral Disabilities	3
Teaching and learning with technology concentration electives	9
Students choose an elective concentration of nine credit hours in teaching and learning with technology. These courses are designed to be taken after the student completes foundation and core courses, with the exception of ADLT 636, the capstone seminar.	
ADLT 640 Theory and Practice of eLearning Integration Into Adult Learning Environments	3
ADLT 641 Exploration of Digital Media for Adult Learning	3
ADLT 642 Design Challenges in Creating eLearning for Adults	3
Total graduate credit hours required (minimum)	33

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Curriculum and Instruction, Master of Education (M.Ed.) with a concentration in instructional technology

Graduate program director

Leila Christenbury, Ed.D. Chair, Department of Teaching and Learning lchriste@vcu.edu (804) 828-1305

Additional contact:

Monty Jones, M.Ed. Director of technology, School of Education joneswm2@vcu.edu (804) 827-2606

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Curriculum and Instruction, Master of Education (M.Ed.) with a concentration in teaching and learning

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Curriculum and Instruction, Master of Education (M.Ed.) with a concentration in instructional technology			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.Ed.	Fall	Feb 1	GRE or MAT
	Spring	Nov 1	
	Summer	Feb 1	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Three letters of recommendation addressing the student's potential for graduate study in education
- 2. Student's written statement concerning career interests
- 3. Transcripts of all previous college work
- 4. Satisfactory scores on the GRE or MAT

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The Master of Education in Curriculum and Instruction program is designed to provide professional and cognate experiences for experienced educators seeking to develop additional skills in the use of technology in support of teaching and learning.

Student learning outcomes

- Students will demonstrate an understanding of research designs and an ability to read research studies critically.
- Students will demonstrate an understanding of the historical, philosophical, sociological and ethical foundations of education and the impact that these have on public education.
- Students will demonstrate an understanding of the use of technology in support of student learning and the instructional process

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 33
 credit hours.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.

Curriculum requirements

Courses	Credit hours
Foundations	9
EDUS 660 Research Methods in Education	3
EDUS 673 Seminar on Educational Issues, Ethics and Policy Select one of the following:	3
EDUS/PSYC 607 Advanced Educational Psychology for Elementary Teachers	3
STAT/SOCY 508 Introduction to Social Statistics	3
TEDU 615 Curriculum Development	3
TEDU 617 Instructional Models and the Curriculum Other course as approved by adviser	3
Core courses	18
TEDU 556 Advanced Computer Applications in Education	3
TEDU 560 Instructional Strategies Using the Internet	3

TEDU 610 Developing and Critiquing Visual Literacy	3
TEDU 620/MASC 681 Video Applications in Instruction	3
TEDU 640 Designing and Managing eLearning	3
TEDU 673 Technology Leadership and Staff Development	3
Approved elective	6
Any graduate course with TEDU, EDUS or SEDP prefix	
Other courses as approved by adviser	
Total graduate credit hours required (minimum)	33

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Curriculum and Instruction, Master of Education (M.Ed.) with a concentration in teaching and learning

Graduate program director

Leila Christenbury, Ed.D. Chair, Department of Teaching and Learning lchriste@vcu.edu (804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Curriculum and Instruction, Master of Education (M.Ed.) with a concentration in instructional technology

Admission requirements

This concentration is intended for students who initially pursue a licensure program, but for whom that is no longer appropriate. Admission is by special action approved by the dean. Students may not apply directly to this concentration.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Education in Curriculum and Instruction program is designed to provide professional and cognate experiences for students who have been admitted to the Master of Teaching program but choose not to complete licensure. Enrollment in the teaching and learning concentration requires recommendation from the student's adviser and approval by the department chair. Content courses within the program are selected in consultation with an adviser.

Student learning outcomes

- Students will demonstrate an understanding of research designs and an ability to read research studies critically.
- Students will demonstrate an understanding of the historical, philosophical, sociological and ethical foundations of education and the impact that these have on public education.
- Students will demonstrate an understanding of the use of technology in support of student learning and the instructional process

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 33
 credit hours.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.

Curriculum requirements

Courses	Credit hours
Foundations	9
EDUS 660 Research Methods in Education	3
EDUS 673 Seminar on Educational Issues, Ethics and Policy	3
Select one of the following:	
EDUS/PSYC 607 Advanced Educational Psychology for Elementary Teachers	3
STAT/SOCY 508 Introduction to Social Statistics	3
TEDU 615 Curriculum Development	3
TEDU 617 Instructional Models and the Curriculum	3
Other course as approved by adviser	

Core courses 18

18 hours of graduate coursework with TEDU, EDUS or SEDP prefix

as approved by adviser

Approved elective

Any graduate course with TEDU, EDUS or SEDP prefix Other courses as approved by adviser

Total graduate credit hours required (minimum) 33

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Education, Doctor of Philosophy (Ph.D.) with a concentration in curriculum, culture and change

Graduate program director

Henry T. Clark, Ph.D. Senior associate dean for academic affairs htclark@vcu.edu

(804) 828-3382

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Education, Doctor of Philosophy (Ph.D.) with a concentration in counselor education and supervision

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational leadership

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational psychology

Education, Doctor of Philosophy (Ph.D.) with a concentration in research and evaluation

Education, Doctor of Philosophy (Ph.D.) with a concentration in special education and disability leadership

Education, Doctor of Philosophy (Ph.D.) with a concentration in sport leadership Education, Doctor of Philosophy (Ph.D.) with a concentration in urban services leadership

Apply online at graduate.admissions.vcu.edu.

Admission requirements

6

Education, Doctor of Philosophy (Ph.D.) with a concentration in curriculum, culture and change			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Ph.D.	Summer or fall	Nov 15 (early consideration)	GRE
		Feb 1 (final deadli	ine)

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Master's degree in curriculum and instruction, teaching and learning, educational philosophy or related discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests and goals
- 4. Transcripts of all previous college work
- 5. A personal interview and writing sample (may be requested)
- 6. Professional vitae/resume
- 7. Satisfactory scores on the GRE

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The curriculum, culture and change concentration offers a rigorous doctoral-level learning experience in curriculum and instruction with a strong emphasis on advocacy and social justice. The concentration prepares curriculum and instruction leaders for positions in school systems at the building level and above, as well as scholars with a wide range of curricular interests — urban education, rural education, linguistically diverse groups, oppressed groups, critical pedagogy, philosophical and sociocultural foundations of education, etc. In addition to a deep grounding in theoretical, practical and methodological approaches to curriculum and instruction, the concentration prepares instructional leaders to advocate for change across a wide range of institutions, systems and contexts. The concentration offers challenging learning experiences in the field of curriculum and instruction. Its expressed social justice values allow framing of courses in ways that provide critical analyses of contemporary schooling and ground students in the philosophical and historical roots of school change. The program welcomes students with interests in all institutional settings serving students across the life span (early childhood through adulthood) as well as informal and nonformal contexts. It also allows for discipline-specific cohorts in fields such as STEM and literacy.

The concentration distinguishes itself by preparing curriculum and instruction leaders to be change agents capable of working in school systems, higher education and advocacy organizations. It reflects an activist stance toward the education profession — one that views schooling as not only shaped by society but also as an active force for equity and meaningful societal change. It will appeal to a wide range of students: those who are seeking to become instructional leaders in school systems, those preparing to teach in the academy and all those desiring a strong foundation in educational reform.

Student learning outcomes

- 1. Complete an original research study: dissertation component Student will design, implement, analyze and defend an original research study. Once a student passes the prospectus hearing, he or she will collect and analyze the data and finish writing the last two chapters of their dissertation. Students have a committee of a minimum of four faculty members. Typically, this consists of a chair, a methodologist, a subject-matter expert and an expert outside of the School of Education. Each committee member independently reviews the student's work. Once the dissertation defense has occurred, the committee discusses their thoughts on the quality of the student work. Once all members agree, the student is granted a Ph.D.; therefore, inter-rater reliability is extremely high.
- Apply skills in external setting: externship component Students will
 demonstrate their knowledge and skills in a professional placement in a
 school, agency or corporate setting. The faculty adviser and the externship
 site supervisor work together to evaluate the student.
- 3. Develop research knowledge and skills: research component Students will acquire the prerequisite skills essential to designing, conducting and interpreting qualitative and quantitative design research. Students will demonstrate this knowledge and skill set on a qualifying examination, which is independently evaluated by at least two faculty members. To address interrater reliability, if the two faculty members disagree on the student's level of knowledge, a third faculty member is called in to evaluate the student's responses on the qualifying examination. This exam is also graded "blindly," meaning that the evaluator does not know which student he or she is evaluating.
- 4. Develop in-depth knowledge in one area of study: concentration component Students will demonstrate in-depth knowledge and skills in an area of study that is congruent with their current or projected career goals. Content will differ according to chosen concentration.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 48-54 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in three courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- 3. Externship requirement: Students must complete an approved externship.
- Examination requirements: Students must pass both a qualifying examination early in the program and a comprehensive examination near the end of the program.
- Dissertation requirements: Students must complete and defend a research dissertation.

Curriculum requirements

Foundation	6
EDUS 702 Foundations of Educational Research and Doctoral Scholarship I	3
EDUS 703 Foundations of Educational Research and Doctoral Scholarship II	3
Research	12
EDUS 608 Educational Statistics	3

EDUS 710 Educational Research Design	3
EDUS 711 Qualitative Methods and Analysis	3
Research elective	3
Externship	3
EDUS 700 Externship	3

Dissertation EDUS 890 Dissertation Seminar	9 (minimum 3
EDUS 899 Dissertation Research (minimum of 6 credit ho	ours) 6 (minimum)
Concentration courses	24
EDUS 706 Educational Theory and Praxis in Historical ar Contemporary Contexts	nd 3
EDUS 707 Sociocultural Perspectives on Schooling, SocioChange	ety and 3
TEDU 617 Instructional Models and the Curriculum	3
TEDU 730 Professional Development for Changing School	ols 3
TEDU 731 Instructional Theories and Strategies	3
TEDU 732 Advanced Seminar in Curriculum Studies	3
Other courses selected in consultation with the adviser	6
Total graduate credit hours required (minimum)	54

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Degree candidacy requirements



Graduation requirements

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Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Below is a link to the Doctoral Student Handbook: soe.vcu.edu/wp-content/uploads/sites/3436/2014/10/2014_PhD_Handbook.pdf

Education, Doctor of Philosophy (Ph.D.) with a concentration in urban services leadership

Graduate program director

Henry T. Clark, Ph.D.

Senior associate dean for academic affairs

htclark@vcu.edu (804) 828-3382

Additional contact

Robin R. Hurst, Ph.D.

Concentration coordinator, urban services leadership

rrhurst@vcu.edu

(804) 828-01305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Education, Doctor of Philosophy (Ph.D.) with a concentration in counselor education and supervision

Education, Doctor of Philosophy (Ph.D.) with a concentration in curriculum, culture and change

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational leadership

Education, Doctor of Philosophy (Ph.D.) with a concentration in educational psychology

Education, Doctor of Philosophy (Ph.D.) with a concentration in research and evaluation

Education, Doctor of Philosophy (Ph.D.) with a concentration in special education and disability leadership

Education, Doctor of Philosophy (Ph.D.) with a concentration in sport leadership

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Education, Doctor of Philosophy (Ph.D.) with a concentration in urban services leadership			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Ph.D.	Summer or fall	Nov 15 (early consideration)	GRE
		Feb 1 (final deadli	ne)

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Master's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. A personal interview and writing sample (may be requested)
- 6. Professional vitae/resume
- 7. Satisfactory scores on the GRE

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 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The urban services leadership concentration has two focal areas with different emphases to develop leaders as scholars and practitioners in adult learning or health promotion and education.

Adult learning: Applicants are expected to have experience working with adult learners in organizational, community, government, higher education, health care or nonprofit settings or within the community in roles as faculty, faculty developers, trainers, human resource development and organizational development professionals, adult literacy educators, or other roles in which they are actively involved in the teaching and training of adult learners.

Health promotion and education: This focus is designed to prepare future researchers, faculty and practitioners for leadership roles in academic, government (local, state, national and international), voluntary health agencies and community-based and other health-related organizations. Doctoral students will utilize a multidisciplinary approach to develop a broad understanding of the critical issues and challenges in health promotion and health education and subsequently apply that understanding to the planning, implementation and evaluation of health promotion and education programs and initiatives.

Student learning outcomes

- 1. Complete an original research study: dissertation component Student will design, implement, analyze and defend an original research study. Once a student passes the prospectus hearing, he or she will collect and analyze the data and finish writing the last two chapters of their dissertation. Students have a committee of a minimum of four faculty members. Typically, this consists of a chair, a methodologist, a subject-matter expert and an expert outside of the School of Education. Each committee member independently reviews the student's work. Once the dissertation defense has occurred, the committee discusses their thoughts on the quality of the student work. Once all members agree, the student is granted a Ph.D.; therefore, inter-rater reliability is extremely high.
- Apply skills in external setting: externship component Students will
 demonstrate their knowledge and skills in a professional placement in a
 school, agency or corporate setting. The faculty adviser and the externship
 site supervisor work together to evaluate the student.
- 3. Develop research knowledge and skills: research component Students will acquire the prerequisite skills essential to designing, conducting and interpreting qualitative and quantitative design research. Students will demonstrate this knowledge and skill set on a qualifying examination, which is independently evaluated by at least two faculty members. To address interrater reliability, if the two faculty members disagree on the student's level of knowledge, a third faculty member is called in to evaluate the student's responses on the qualifying examination. This exam is also graded "blindly," meaning that the evaluator does not know which student he or she is evaluating.
- 4. Develop in-depth knowledge in one area of study: concentration component Students will demonstrate in-depth knowledge and skills in an area of study that is congruent with their current or projected career goals. Content will differ according to chosen concentration.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 48-54 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in three courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- 3. Externship requirement: Students must complete an approved externship.
- Examination requirements: Students must pass both a qualifying examination early in the program and a comprehensive examination near the end of the program.

5. Dissertation requirements: Students must complete and defend a research

Curriculum requirements

Courses	Credit hours
Foundation	6
EDUS 702 Foundations of Educational Research and Doctoral Scholarship I	3
EDUS 703 Foundations of Educational Research and Doctoral Scholarship II	3
Research	12
EDUS 608 Educational Statistics	3
EDUS 710 Educational Research Design	3
EDUS 711 Qualitative Methods and Analysis	3
Research elective	3
Externship	3
EDUS 700 Externship	3
Dissertation	9 (minimum)
EDUS 890 Dissertation Seminar	3
EDUS 899 Dissertation Research (minimum of 6 credit hours)	6 (minimum)
Concentration courses	18

Courses designed to prepare future researchers and practitioners for leadership roles in either adult learning or health promotion and education. The concentration component consists of 18 hours of course work selected in consultation with the student's

adviser

Total graduate credit hours required (minimum)

48

Degree candidacy requirements

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Below is a link to the Doctoral Student Handbook: soe.vcu.edu/wp-content/uploads/sites/3436/2014/10/2014 PhD Handbook.pdf

Instructional Technology, Certificate in (Postbaccalaureate graduate certificate)

Graduate program director

Monty Jones, M.Ed.

Director of technology, School of Education

ioneswm2@ycu.edu

(804) 827-2606

Additional contact

Henry T. Clark, Ph.D.

Senior associate dean for academic affairs

htclark@vcu.edu

(804) 828-3382

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Instructional Technology, Certificate in (Post-baccalaureate graduate certificate)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Certificate	Fall	Feb 1	· ·
	Spring	Nov 1	
	Summer	Feb 1	

Applicants must meet all general admission requirements of the VCU Graduate

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> General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The post-baccalaureate Certificate in Instructional Technology prepares educators to use technology effectively in their schools and to provide instructional leadership and technical support to other educators who use computer technology. Designed for teachers, resource persons and administrators at all grade levels (K-12), the sequence in instructional technology offers a unique opportunity to develop comprehensive knowledge and experience in the educational applications of computers and related technologies. The primary purpose of this certificate program is to meet the growing need for highly qualified core curriculum teachers, instructional technology support teachers and associated administrative personnel.

The program requires six three-credit-hour courses. In addition, prerequisites for the program require that students must be licensed K-12 teachers or administrators with a minimum of two years of classroom experience who have completed TEDU 507 or provide evidence of mastery level of the requirements of that class. The program is committed to providing access to technology so that hands-on experience is offered in every class and participants produce instructional material that can be immediately integrated into the classroom.

Student learning outcomes

- Candidates will demonstrate the necessary knowledge and skills to facilitate
 effective learning experiences using technology.
- 2. Candidates will demonstrate their skills in visual arts.
- 3. Candidates will successfully demonstrate searching techniques.
- 4. Candidates will be able to produce and edit video for education.
- Candidates will be able to set up online instructional modules incorporating various communication and digital activities for students.
- Candidates will present at a conference and be able to prepare a professional development class in technology.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 18 credit hours.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.

Curriculum requirements

Courses	Credit hours
TEDU 556 Advanced Computer Applications in Education	3
TEDU 560 Instructional Strategies Using the Internet	3
TEDU 610 Developing and Critiquing Visual Literacy	3
TEDU 620/MASC 681 Video Applications in Instruction	3
TEDU 640 Designing and Managing eLearning	3
TEDU 673 Technology Leadership and Staff Development	3
Total graduate credit hours required (minimum)	18

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Degree candidacy requirements



Graduation requirements

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Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Medical Education, Certificate in (Post-baccalaureate graduate certificate)

Graduate program director

TRD

Additional contacts

Henry T. Clark, Ph.D.

Senior associate dean for academic affairs

htclark@vcu.edu

(804) 828-3382

Teresa J. Carter, Ph.D.

Associate dean for professional instruction and faculty development, School of Medicine

tjcarter@vcu.edu

(804) 828-3134

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Medical Education, Certificate in (Post-baccalaureate graduate certificate)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Certificate	Fall	Mar 15	
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work

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 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The post-baccalaureate graduate Certificate in Medical Education is a 12-credithour program designed for faculty in the School of Medicine at Virginia Commonwealth University to enhance depth and breadth of faculty expertise in curriculum design and adult learning strategies for teaching, as well as to foster development of a cadre of academic leaders who can model best practices in teaching undergraduate, clinical and graduate programs.

Student learning outcomes

- Students will be able to describe applications of curriculum design principles to medical education and adjust current medical education curriculum accordingly.
- Students will be able to describe the nature of adult learning and how that applies to medical education.
- Students will be able to apply principles of active engaged learning to medical education.
- Students will be able to describe research paradigms in the study of teaching and learning.
- Students will design a study to investigate teaching practices in medical education

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 12 credit hours
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.

Curriculum requirements

Courses	Credit hours
Required courses	8
ADLT 670 Curriculum Design in Medical Education	2
ADLT 671 Theory and Practice of Adult Learning for Medical Educators	2
ADLT 672 Instructional Strategies for Teaching in Medical Education	2
ADLT 673 Teaching as Scholarship in Medical Education	2
Electives	4
Select two of the following:	
ADLT 674 Performance Feedback and Simulation in the Medical Education Curriculum	2
ADLT 675 Group and Team Facilitation for Medical Educators	2
ADLT 676 Digital Media Technologies for Teaching in Medicine	2
ADLT 677 Reflective Practice in Medical Education	2
Total graduate credit hours required (minimum)	12

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Online Teaching for K-12 Educators, Certificate in (Post-baccalaureate graduate certificate)

Graduate program director

Monty Jones, M.Ed. Director of technology, School of Education joneswm2@vcu.edu (804) 827-2606

Additional contact

Henry T. Clark, Ph.D. Senior associate dean for academic affairs htclark@vcu.edu (804) 828-3382

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Online Teaching for K-12 Educators, Certificate in (Post-baccalaureate graduate certificate)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Certificate	Fall	Mar 15	
	Spring	Nov 1	
	Summer	Mar 15	

Applicants must meet all general admission requirements of the VCU Graduate School.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The post-baccalaureate graduate Certificate in Online Teaching for K-12 Educators is a 17-credit-hour certificate designed to prepare candidates to develop and facilitate effective online instruction in K-12 environments. The goals for the certificate are to:

- Expand on participants' current teaching expertise in instructional strategies, curriculum design, and assessment and evaluation to adapt to fully online and hybrid teaching environments
- 2. Foster the development of instructional leaders who can model and articulate best practices in online teaching within K-12 environments

Student learning outcomes

- Participants will demonstrate effective electronic communication methods for instruction in the K-12 environment.
- Participants will reflect on current research and standards for online/blended course design/facilitation and articulate a personal philosophy of practice in these areas.
- Participants will demonstrate effective virtual systematic instructional design through the development of a virtual learning environment.
- 4. Participants will demonstrate effective facilitation of virtual instruction, including employment of techniques to encourage discussion, development of policies and procedures for digital communications and online conflict moderation, and use of effective virtual tools to improve learning.
- Participants will demonstrate knowledge of effective strategies for assessment and evaluations in online environments through the development of rubrics and alternative assessment tools.
- Participants will demonstrate knowledge of TPACK framework in designing instruction with appropriate virtual tools.
- 7. Participants will demonstrate knowledge of online time and course management through the development of policies and procedures to assist online learners with these issues and the development of appropriate materials that reflect effective time and course management by the course facilitator.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete a 21-month curriculum of online courses as well as course development and facilitation practica.

Curriculum requirements

Courses	Credit hours
TEDU 662 Foundations of Online Teaching	3
TEDU 663 Facilitating Digital Communication	3
TEDU 664 Instructional Design of Online Environments	2
TEDU 665 Assessment and Evaluation in Online Environments	1
TEDU 666 Content Focus Workshop	1
TEDU 667 Course Development Practicum	3
TEDU 668 Time and Course Management for Online Learning	1
TEDU 669 Online Course Facilitation Practicum	3
Total graduate credit hours required (minimum)	17

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the

student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Reading Specialist, Certificate in (Post-master's certificate)

Program accreditation

National Council for Accreditation of Teacher Education

Graduate program director

Leila Christenbury, Ed.D.

Chair, Department of Teaching and Learning

lchriste@vcu.edu

(804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Reading Specialist, Certificate in (Post-master's certificate)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Certificate	Fall	Feb 1	GRE or MAT
	Spring	Nov 1	
	Summer	Feb 1	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Must hold a master's degree in any specialty area related to education
- 2. Have active teacher license
- 3. Have at least three years of teaching experience in a reading-related setting
- Three letters of recommendation addressing the student's potential for graduate study in education
- 5. Student's written statement concerning career interests
- 6. Transcripts of all previous college work
- 7. Satisfactory scores on the GRE or MAT

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The certificate program is offered for individuals who aspire to become reading specialists. Applicants for the certificate program must hold a master's degree in any specialty area related to education.

The certificate program is designed for students who wish to gain state licensure as a reading specialist in kindergarten through high school settings. Applicants are required to have at least three years of teaching experience in a reading-related field setting if they want to be recommended to the Department of Education for endorsement as a reading specialist in Virginia.

All requirements for admission to graduate school apply to applicants for the Post-master's Certificate in Reading Specialist. All state department requirements for reading specialist (specifically the 12 hours of graduate or undergraduate work in selected areas) must be met.

Students are required to earn a minimum of 24 graduate hours beyond their current master's degree, including the required reading courses, an approved reading selective and an elective in the School of Education that has been approved by the adviser. Advisers will recommend selective courses based upon student experience and goals. During the last semester of course work, students must complete a reading portfolio documenting their work in the program and related work experiences. Candidates must receive a passing score on the Virginia Reading Assessment as a graduation requirement.

Persons completing the program are expected to demonstrate:

- 1. An understanding of the reading language learning process
- The ability to critique, adapt and model use of a variety of reading instructional strategies, methods and programs
- Expertise in developing and providing for continuous assessment of an individual and groups
- Ability to implement schoolwide developmental, creative and intervention reading/language arts programs
- Ability to understand and apply theory to practice within a variety of cultural contexts

Student learning outcomes

- Demonstrate content knowledge in reading education: Candidates demonstrate content knowledge in reading education as evidenced by the Reading for Virginia Educators/Virginia Reading Assessment scores and the philosophy of reading paper.
- Effectively plan instruction: Candidates demonstrate that they can effectively plan reading and literacy instruction, or fulfill other professional responsibilities in reading education as evidenced by the organizing and implementing reading programs assessment.

- 3. Effectively apply knowledge, skills and dispositions: Candidates demonstrate knowledge, skills and dispositions are applied effectively in practice as evidenced by the internship evaluation.
- Effect on student learning: Candidates demonstrate effects on student learning and provision of supportive learning environments for student learning as evidenced by the internship progress report.
- Candidates demonstrate IRA standards proficiency: Candidates further demonstrate proficiency on IRA competencies as evidenced by the portfolio assessment and the externship action research report and presentation assessment.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 24 credit hours.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Testing requirements: Students must provide a passing score on the Virginia Reading Assessment for graduation.
- Endorsement requirements: Students must meet all Virginia Department of Education requirements to be recommended for endorsement.

Curriculum requirements

Courses	Credit hours
READ 600 Analysis and Correction of Reading Problems	3
READ 605 Organizing and Implementing Reading Programs	3
READ 700 Externship	3
TEDU 561 Reading Foundations: Sociological/Psychological Perspectives*	3
TEDU 562 Reading Instruction in the Content Areas*	3
TEDU 672 Internship	3
Approved literacy elective (select one of the following)	3
READ 601 Psycholinguistics and Language Arts Curriculum	3
READ 602 Literacy for Adults	3
TEDU 500 Workshop in Education: topics in literacy (to be	3
designated)	
TEDU 525 Teaching Language Arts	3
TEDU 526 Word Study	3
TEDU/ENGL 528 Children's Literature II	3
TEDU 549 Diagnostic Reading in the Secondary School	3
TEDU /ENGL/LING 552 Teaching English as a Second Language*	3
TEDU 681 Investigations and Trends in Teaching	3
Elective	3
Electives should be used to ensure state regulations for the endorsement are met.	
*These courses may also count as part of the ESL endorsement.	

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Reading, Master of Education (M.Ed.)

Program accreditation

National Council for Accreditation of Teacher Education; International Reading Association

Graduate program director

Valerie J. Robnolt, Ph.D.

Associate professor, Department of Teaching and Learning vjrobnolt@vcu.edu

(804) 828-1305

Additional contact

Henry T. Clark, Ph.D.

Senior associate dean for academic affairs

htclark@vcu.edu

(804) 828-3382

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Reading, Master of Education (M.Ed.) with a concentration in K-12 reading specialist

Reading, Master of Education (M.Ed.) with a concentration in reading with TESOL/adult

Reading, Master of Education (M.Ed.) with a concentration in reading with TESOL/K-12

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Reading, Master of Education (M.Ed.)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.Ed.	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, applicants for the certificate program must hold a master's degree in any specialty area related to education.

A cooperative agreement has been established with Virginia State University to permit selected, qualified students to complete the M.Ed. in Reading program. Up to 12 credit hours from an approved list may be transferred from the cooperating institution. Interested students should contact the Department of Teaching and Learning.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The Master of Education in Reading program is designed to provide experienced teachers who are prospective reading specialists with a program of sequential and integrated experiences in areas of the reading curriculum ranging from preschool to adult levels. Students will gain an understanding of the developmental and diagnostic processes involved in teaching reading and the language arts and will become familiar with the resource and supervisory functions that are part of the specialist role. Prior to graduation, students must complete a reading portfolio documenting their work in the program and related work experiences and pass the Virginia Reading Assessment. The M.Ed. in Reading is an approved program (K-12) for students who meet Virginia State Department of Education requirements. The reading specialist endorsement also requires completion of three years of teaching in a reading-related field.

Student learning outcomes

- Demonstrate content knowledge in reading education: Candidates demonstrate content knowledge in reading education as evidenced by the Reading for Virginia Educators/Virginia Reading Assessment scores and philosophy of reading paper.
- Effectively plan instruction: Candidates demonstrate that they can effectively plan reading and literacy instruction or fulfill other professional responsibilities in reading education as evidenced by the organizing and implementing reading programs assessment.
- 3. Effectively apply knowledge, skills and dispositions: Candidates demonstrate knowledge, skills and dispositions are applied effectively in practice as evidenced by the internship evaluation.
- 4. Effect on student learning: Candidates demonstrate effects on student learning and provision of supportive learning environments for student learning as evidenced by the internship progress report.
- Candidates demonstrate IRA standards proficiency: Candidates further demonstrate proficiency on IRA competencies as evidenced by the portfolio assessment and the externship action research report and presentation assessment.

Degree requirements

Students must meet all general VCU Graduate School graduation requirements.

Curriculum requirements

Courses Credit hours

Foundations 9

EDUS 660 Research Methods in Education 3 Human development and learning (choose one course) EDUS 602 Adolescent Growth and Development 3 EDUS 603 Seminar in Child Growth and Development 3 EDUS 604 Adult Development 3 EDUS/PSYC 607 Advanced Educational Psychology for 3 Elementary Teachers EDUS 609 Learning and Motivation in Education 3 Cultural, historical and philosophical (choose one course) EDUS 601 Philosophy of Education 3 EDUS 610 Social Foundations of Education 3 EDUS 612 Education and the World's Future 3 EDUS 614 Contemporary Educational Thought 3 EDUS 673 Seminar on Educational Issues, Ethics and Policy 3 18 Core courses READ 600 Analysis and Correction of Reading Problems 3 READ 605 Organizing and Implementing Reading Programs 3 READ 672 Internship 3 READ 700 Externship 3 TEDU 561 Reading Foundations: Sociological/Psychological 3 Perspectives TEDU 562 Reading Instruction in the Content Areas 3 Restricted electives 6 READ 601 Psycholinguistics and Language Arts Curriculum 3 READ 602 Literacy for Adults 3 TEDU 525 Teaching Language Arts 3 TEDU 526 Word Study 3 TEDU/ENGL 528 Children's Literature II 3 TEDU 549 Diagnostic Reading in the Secondary School 3 TEDU/ENGL/LING 552 Teaching English as a Second 3 Language (Note: Students' advisers may designate an alternate three-credit hour course elective as a substitute for one of the restricted electives above.) Total graduate credit hours required (minimum) 33

Research

Endorsement in teaching English as a second language

Other curricular options:

Students who want to pursue an endorsement in teaching English as a second language may do so in conjunction with the M.Ed. in Reading. The endorsement requires 24 credit hours of study, none of which may be part of the master's degree if TEDU 552 is selected as the restricted elective. Nine additional hours of ESL course work and six hours of a modern foreign language are also required. For additional information, see the school's Added or add-on endorsements page in this bulletin or contact Valerie Robnolt, Ph.D. at vjrobnolt@vcu.edu.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Reading, Master of Education (M.Ed.) with a concentration in K-12 reading specialist

Program accreditation

National Council for Accreditation of Teacher Education; International Reading Association

Graduate program director

Leila M. Christenbury, Ed.D.

Chair, Department of Teaching and Learning

lchriste@vcu.edu

(804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Reading, Master of Education (M.Ed.)

Reading, Master of Education (M.Ed.) with a concentration in reading with TESOL (adult)

Reading, Master of Education (M.Ed.) with a concentration in reading with TESOL (K-12)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Reading, Master of Education (M.Ed.) with a concentration in K-12 reading specialist			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.Ed.	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Satisfactory scores on the GRE or MAT
- Additional program requirements: Admission to clinical experiences in schools requires a background check and fingerprinting

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The K-12 reading specialist concentration in the Master of Education in Reading program is designed to provide experienced teachers who are prospective reading specialists with a program of sequential and integrated experiences in areas of the reading curriculum ranging from preschool to adult levels. Students will gain an understanding of the developmental and diagnostic processes involved in teaching reading and the language arts and will become familiar with the resource and supervisory functions that are part of the specialist role. Prior to graduation, students must complete a reading portfolio documenting their work in the program and related work experiences and pass the Virginia Reading Assessment. The M.Ed. in Reading is an approved program (K-12) for students who meet Virginia State Department of Education requirements. The reading specialist endorsement also requires completion of three years of teaching in a reading-related field.

A cooperative agreement has been established with Virginia State University to permit selected, qualified students to complete the M.Ed. in Reading program. Up to 12 credit hours from an approved list may be transferred from the cooperating institution. Interested students should contact the Department of Teaching and Learning.

Student learning outcomes

- Demonstrate content knowledge in reading education: Candidates demonstrate content knowledge in reading education as evidenced by the Reading for Virginia Educators/Virginia Reading Assessment scores and philosophy of reading paper.
- Effectively plan instruction: Candidates demonstrate that they can effectively plan reading and literacy instruction or fulfill other professional responsibilities in reading education as evidenced by the organizing and implementing reading programs assessment.
- 3. Effectively apply knowledge, skills and dispositions: Candidates demonstrate knowledge, skills and dispositions are applied effectively in practice as evidenced by the internship evaluation.
- 4. Effect on student learning: Candidates demonstrate effects on student learning and provision of supportive learning environments for student learning as evidenced by the internship progress report.
- Candidates demonstrate IRA standards proficiency: Candidates further demonstrate proficiency on IRA competencies as evidenced by the portfolio assessment and the externship action research report and presentation assessment.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- 1. Credit hour requirements: Students are required to complete a minimum of 33 credit hours
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Testing requirements: Students in the K-12 reading specialist concentration must present passing scores on state mandated licensure/endorsement assessments.

Curriculum requirements

Courses	Credit hours
Foundations	9
Research	
EDUS 660 Research Methods in Education	3
Human development and learning (choose one course)	
EDUS 602 Adolescent Growth and Development	3
EDUS 603 Seminar in Child Growth and Development	3
EDUS 604 Adult Development	3
EDUS/PSYC 607 Advanced Educational Psychology for Elementary Teachers	3
EDUS 609 Learning and Motivation in Education	3
Cultural, historical and philosophical (choose one course)	
EDUS 601 Philosophy of Education	3
EDUS 610 Social Foundations of Education	3
EDUS 612 Education and the World's Future	3
EDUS 614 Contemporary Educational Thought	3
EDUS 673 Seminar on Educational Issues, Ethics and Policy	3
Core courses	18
READ 600 Analysis and Correction of Reading Problems	3
READ 605 Organizing and Implementing Reading Programs	3
READ 672 Internship	3
READ 700 Externship	3
TEDU 561 Reading Foundations: Sociological/Psychological Perspectives	3
TEDU 562 Teaching Reading in the Content Area	3
Restricted electives	6
READ 601 Psycholinguistics and Language Arts Curriculum	3
READ 602 Literacy for Adults	3
TEDU 525 Teaching Language Arts	3
TEDU 526 Word Study	3
TEDU/ENGL 528 Children's Literature II	3
TEDU 549 Diagnostic Reading in Secondary School	3
TEDU/ENGL/LING 552 Teaching English as a Second Language	3
Total graduate credit hours required (minimum)	33

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Reading, Master of Education (M.Ed.) with a concentration in reading with TESOL/adult

Graduate program director

Leila M. Christenbury, Ed.D.

Chair, Department of Teaching and Learning

lchriste@vcu.edu (804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Reading, Master of Education (M.Ed.)

Reading, Master of Education (M.Ed.) with a concentration in K-12 reading

specialist

Reading, Master of Education (M.Ed.) with a concentration in reading with TESOL/K-12

 ${\bf Apply\ online\ at\ graduate.} admissions.vcu.edu.$

Admission requirements

Reading, Master of Education (M.Ed.) with a concentration in reading with TESOL/adult			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.Ed.	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Satisfactory scores on the GRE or MAT
- Additional program requirements: Admission to clinical experiences in schools requires a background check and fingerprinting

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

Students who are interested in teaching English as a second language to adults may develop their knowledge and skills in the adult concentration of the TESOL track in the M.Ed. in Reading. Those who are interested in pursuing an endorsement in teaching English as a second language in the adult setting must already have their K-12 initial licensure and adult education endorsement. The following are prerequisites to the concentration: LING/ENGL/ANTH 390 and six credit hours of foreign language. Students who pursue this concentration will **not** be endorsed as a K-12 reading specialist.

Student learning outcomes

- Demonstrate an understanding of the research methodologies in education with the capacity to read and evaluate the relevance and quality of educational research
- 2. Demonstrate an understanding of the developmental nature of adult learning
- Demonstrate an understanding of the methodologies appropriate for teaching literacy skills to adults
- 4. Demonstrate an understanding of the nature of second language learning

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 33
 credit hours.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Testing requirements: Students in the K-12 reading specialist concentration must present passing scores on state mandated licensure/endorsement assessments.

Curriculum requirements

Courses	Credit hours
Foundations	9
Research	
EDUS 660 Research Methods in Education	3
Human development and learning	
ADLT 601 Adult Learning and Development	3
Cultural, historical and philosophical (choose one course)	
EDUS 601 Philosophy of Education	3
EDUS 610 Social Foundations of Education	3
EDUS 612 Education and the World's Future	3
EDUS 614 Contemporary Educational Thought	3
EDUS 673 Seminar on Educational Issues, Ethics and Policy	3

Core courses	24
ADLT 608 Adult Education Practicum	3
ENGL/ENED 532 Applied English Linguistics	3
READ 602 Literacy for Adults	3
TEDU/ENGL/LING 552 Teaching English as a Second	3
Language	
TEDU 561 Reading Foundations: Sociological/Psychological	3
Perspectives	
TEDU/FRLG 575 Intercultural Communication	3
TEDU/LING 650 Second Language Acquisition	3
TEDU 681 Investigations and Trends in Teaching	3
Total graduate credit hours required (minimum)	33

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Reading, Master of Education (M.Ed.) with a concentration in reading with TESOL/K-12

Program accreditation

National Council for Accreditation of Teacher Education; International Reading Association

Graduate program director

Leila M. Christenbury, Ed.D. Chair, Department of Teaching and Learning lchriste@vcu.edu (804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Reading, Master of Education (M.Ed.)

Reading, Master of Education (M.Ed.) with a concentration in K-12 reading specialist

Reading, Master of Education (M.Ed.) with a concentration in reading with TESOL/adult

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Reading, Master of Education (M.Ed.) with a concentration in reading with TESOL/K-12			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.Ed.	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree in an appropriate discipline
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Satisfactory scores on the GRE or MAT
- Additional program requirements: Admission to clinical experiences in schools requires a background check and fingerprinting

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

Students who already have their K-12 initial licensure and want to pursue an endorsement in teaching English as a second language in the K-12 setting may do so in the K-12 subconcentration of the TESOL concentration in the M.Ed. in Reading. The following are prerequisites to the concentration: LING/ENGL/ANTH 390 and six credit hours of foreign language. Students who pursue this concentration will **not** be endorsed as a K-12 reading specialist. Students interested in pursuing both endorsements must take the following nine credit hours in addition to the ones listed below: READ 600, READ 605 and READ 700.

Student learning outcomes

- Demonstrate content knowledge in reading education: Candidates demonstrate content knowledge in reading education as evidenced by the Reading for Virginia Educators/Virginia Reading Assessment scores and philosophy of reading paper.
- Demonstrate content knowledge in teaching English to speakers of other languages: Candidates demonstrate an understanding of the nature of second language learning and the relationship between L1 and L language and content acquisition.

- Effectively plan instruction: Candidates demonstrate that they can effectively
 plan reading and literacy instruction or fulfill other professional
 responsibilities in reading education as evidenced by the organizing and
 implementing reading programs assessment.
- Effectively apply knowledge, skills and dispositions: Candidates demonstrate that knowledge, skills and dispositions are applied effectively in practice as evidenced by the internship evaluation.
- Effect on student learning: Candidates demonstrate effects on student learning and provision of supportive learning environments for student learning as evidenced by the internship progress report.
- Candidates demonstrate IRA standards proficiency: Candidates further demonstrate proficiency on IRA competencies as evidenced by the portfolio assessment and the externship action research report and presentation assessment.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 33
 credit hours.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Testing requirements: Students in the K-12 reading specialist concentration must present passing scores on state mandated licensure/endorsement assessments.

Curriculum requirements

Courses	Credit hours
Foundations	9
Research	
EDUS 660 Research Methods in Education	3
Human development and learning (choose one course)	
EDUS 602 Adolescent Growth and Development	3
EDUS 603 Seminar in Child Growth and development	3
EDUS 604 Adult Development	3
EDUS/PSYC 607 Advanced Educational Psychology for Elementary Teachers	3
EDUS 609 Learning and Motivation in Education	3
Cultural, historical and philosophical (choose one course)	
EDUS 601 Philosophy of Education	3
EDUS 610 Social Foundations of Education	3
EDUS 612 Education and the World's Future	3
EDUS 614 Contemporary Educational Thought	3
EDUS 673 Seminar on Educational Issues, Ethics and Policy	3
Core courses	24
ENGL/ENED 532 Applied English Linguistics	3
READ 672 Internship	3
TEDU/ENGL/LING 552 Teaching English as a Second Language	3
TEDU 561 Reading Foundations: Sociological/Psychological Perspectives	3
TEDU 562 Reading Instruction in the Content Areas	3
TEDU/FRLG 575 Intercultural Communication	3
TEDU/LING 650 Second Language Acquisition	3
TEDU 681 Investigations and Trends in Teaching	3
Total graduate credit hours required (minimum)	33

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Teaching English to Speakers of Other Languages, Certificate in (Post-baccalaureate graduate certificate)

Graduate program director

Leila Christenbury, Ed.D. Chair, Department of Teaching and Learning lchriste@vcu.edu (804) 828-1305

Additional contact

Henry T. Clark, Ph.D. Senior associate dean for academic affairs htclark@vcu.edu (804) 828-3382

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Teaching English to Speakers of Other Languages, Certificate in (Post-baccalaureate graduate certificate)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Certificate	Fall	Mar 15	-
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Bachelor's degree in an appropriate discipline including education, social work, psychology or human services
- Three letters of recommendation addressing the student's potential for graduate study in education

- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work

Note: Endorsement requires a valid Virginia teaching license.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

This program is designed to prepare professionals to work with K-12 students for whom English is not the native language. The course sequence meets the Virginia Department of Education requirements for endorsement in ESL. Note that endorsement requires that individuals have an active teaching license in Virginia.

Student learning outcomes

- Demonstrate foundational knowledge needed to support LEP students' literacy learning
- 2. Effectively plan lessons that attend to linguistic proficiency of learners in various settings
- Create assessments that assess LEP student competency in communication and content learning
- Demonstrate a disposition of tolerance and appreciation for linguistic and cultural diversity
- Demonstrate a range of teaching strategies and approaches that lead to LEP student learning

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 15 credit hours.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- 3. Prerequisite or corequisite requirements: Students must have taken a class in linguistics and six hours of a modern foreign language.
- 4. Endorsement requires a valid Virginia teaching license.

Curriculum requirements

As prerequisites or corequisites to the certificate program, students must have taken a class in linguistics and have taken six credit hours of a modern foreign language. These courses are part of the endorsement requirements and may be taken at the undergraduate or graduate level. The certificate program consists of 15 credit hours of graduate course work as follows:

Courses	Credit hours
ENGL/LING/TEDU 552 Teaching English as a Second Language	3
TEDU 561 Reading Foundations: Sociological/Psychological	3
Perspectives	
TEDU 562 Teaching Reading in the Content Areas	3
TEDU/FRLG 575 Intercultural Communication	3
TEDU 681 Investigations and Trends in Teaching	3
Total graduate credit hours required (minimum)	15

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in biology education

Program accreditation

National Council for Accreditation of Teacher Education

Graduate program director

Leila Christenbury, Ed.D.

Chair, Department of Teaching and Learning

lchriste@vcu.edu

(804) 828-1305

Additional contact

Jacqueline McDonnough, Ph.D. Secondary science education coordinator jtmcdonnough@vcu.edu (804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in chemistry education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in English education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in history/social studies education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in mathematics education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in physics education

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in biology education			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Certificate	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree with a major, or equivalent, in biology
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Satisfactory scores on the GRE or MAT

There are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the Student Services Center section on the School of Education website for current testing requirements.

Additional program requirements: Admission to clinical experiences in schools requires a background check and fingerprinting.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The post-baccalaureate Certificate in Teaching program is designed for students who have earned bachelor's degrees in fields other than education, who wish to become teachers in secondary schools in one or more subjects and for whom a master's degree is not a priority (applicants already may have earned a master's degree or wish to earn a master's degree in a specialized area of education later). Applicants must have a major or its equivalent in the subject they wish to teach.

Students are required to complete a minimum of 24 hours beyond the bachelor's level, including the courses listed below. Equivalent courses taken within the past five years may transfer; however, a minimum of 27 credit hours, including clinical experiences, must be taken at VCU after admission to the program.

Student learning outcomes

Persons completing the program are expected, among other attributes, to:

- Have an understanding of human development and learning theory appropriate to the age group they will teach
- 2. Demonstrate knowledge of the subjects they will teach
- 3. Develop an understanding of purposes for education and a defensible philosophical approach toward teaching
- Acquire awareness of the diversity of the school-age population in cultural background and styles of learning
- 5. Demonstrate an ability to plan and implement effective teaching
- Measure student learning in ways that lead to sustained development and learning

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 33 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Student teaching requirements: Students must successfully complete approved student teaching experience.
- Additional testing requirement: Students must pass Praxis II, where applicable, for licensure.

Curriculum requirements

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Courses	Credit hours
Foundations	6
EDUS 602 Adolescent Growth and Development or	3
EDUS/PSYC 607 Advanced Educational Psychology for	
Elementary Teachers	2
EDUS 673 Seminar on Education Issues, Ethics and Policy	3
Curriculum	18
TEDU 310 Practicum (taken concurrently with TEDU 537)	2
TEDU 310 Practicum (appropriate section for teaching	1
discipline and taken concurrently with TEDU 540)	
TEDU 537 Secondary School Curriculum	3
TEDU 540 Teaching Middle and High School Sciences	3
TEDU 562 Reading Instruction in the Content Areas	3
TEDU 588 Classroom Management	3
TEDU 681 Investigation and Trends in Teaching	3
Clinical	9
TEDU 672 Internship	4
TEDU 674 Internship II	5
Total graduate credit hours required (minimum)	33

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in chemistry education

Program accreditation

National Council for Accreditation of Teacher Education

Graduate program director

Leila Christenbury, Ed.D. Chair, Department of Teaching and Learning lchriste@vcu.edu (804) 828-1305

Additional contact

Jacqueline McDonnough, Ph.D. Secondary science education coordinator jtmcdonnough@vcu.edu (804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in biology education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in English education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in history/social studies education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in mathematics education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in physics education

Apply online:

www.graduate.admissions.vcu.edu

Admission requirements

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in chemistry education Degree: Semester(s) Deadline requirements: of entry: dates: Mar 15 Certificate Fall GRE or MAT Nov 1 Spring Summer Mar 15

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree with a major, or equivalent, in chemistry
- Three letters of recommendation addressing the student's potential for graduate study in education

- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Satisfactory scores on the GRE or MAT

There are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the Student Services Center section on the School of Education website for current testing requirements.

Additional program requirements: Admission to clinical experiences in schools requires a background check and fingerprinting.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The post-baccalaureate Certificate in Teaching program is designed for students who have earned bachelor's degrees in fields other than education, who wish to become teachers in secondary schools in one or more subjects and for whom a master's degree is not a priority (applicants already may have earned a master's degree or wish to earn a master's degree in a specialized area of education later). Applicants must have a major or its equivalent in the subject they wish to teach.

Students are required to complete a minimum of 24 hours beyond the bachelor's level, including the courses listed below. Equivalent courses taken within the past five years may transfer; however, a minimum of 27 credit hours, including clinical experiences, must be taken at VCU after admission to the program.

Student learning outcomes

Persons completing the program are expected, among other attributes, to:

- 1. Have an understanding of human development and learning theory appropriate to the age group they will teach
- 2. Demonstrate knowledge of the subjects they will teach
- Develop an understanding of purposes for education and a defensible philosophical approach toward teaching
- 4. Acquire awareness of the diversity of the school-age population in cultural background and styles of learning
- 5. Demonstrate an ability to plan and implement effective teaching
- 6. Measure student learning in ways that lead to sustained development and learning

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

 Credit hour requirements: Students are required to complete a minimum of 33 credit hours depending on concentration.

- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Student teaching requirements: Students must successfully complete approved student teaching experience.
- 4. Additional testing requirement: Students must pass Praxis II, where applicable, for licensure.

Curriculum requirements

Courses	Credit hours
Foundations	6
EDUS 602 Adolescent Growth and Development or EDUS 607/607 Advanced Educational Psychology (choose one)	3
EDUS 673 Seminar on Education Issues, Ethics and Policy	3
Curriculum	18
TEDU 310 Practicum (taken concurrently with TEDU 537)	2
TEDU 310 Practicum (appropriate section for teaching discipline and taken concurrently with TEDU 540)	1
TEDU 537 Secondary School Curriculum	3
TEDU 540 Teaching Middle and High School Sciences	3
TEDU 562 Reading Instruction in the Content Areas	3
TEDU 588 Classroom Management	3
TEDU 681 Investigation and Trends in Teaching	3
Clinical	9
TEDU 672 Internship	4
TEDU 674 Internship II	5
Total graduate credit hours required (minimum)	33

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in English education

Program accreditation

National Council for Accreditation of Teacher Education

Graduate program director

Leila Christenbury, Ed.D. Chair, Department of Teaching and Learning lchriste@vcu.edu

(804) 828-1305

Additional contact

Ross Collin, Ph.D.

Secondary English program coordinator

rcollin@vcu.edu

(804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in biology education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in chemistry education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in history/social studies education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in mathematics education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in physics education

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in English education			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Certificate	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree with a major, or equivalent, in English
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Satisfactory scores on the GRE or MAT

There are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the Student Services Center section on the School of Education website for current testing requirements.

Additional program requirements: Admission to clinical experiences in schools requires a background check and fingerprinting.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the

University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The post-baccalaureate Certificate in Teaching program is designed for students who have earned bachelor's degrees in fields other than education, who wish to become teachers in secondary schools in one or more subjects and for whom a master's degree is not a priority (applicants already may have earned a master's degree or wish to earn a master's degree in a specialized area of education later). Applicants must have a major or its equivalent in the subject they wish to teach.

Students are required to complete a minimum of 24 hours beyond the bachelor's level, including the courses listed below. Equivalent courses taken within the past five years may transfer; however, a minimum of 27 credit hours, including clinical experiences, must be taken at VCU after admission to the program.

Student learning outcomes

Persons completing the program are expected, among other attributes, to:

- 1. Have an understanding of human development and learning theory appropriate to the age group they will teach
- 2. Demonstrate knowledge of the subjects they will teach
- Develop an understanding of purposes for education and a defensible philosophical approach toward teaching
- Acquire awareness of the diversity of the school-age population in cultural background and styles of learning
- 5. Demonstrate an ability to plan and implement effective teaching
- Measure student learning in ways that lead to sustained development and learning

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 33
 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Student teaching requirements: Students must successfully complete approved student teaching experience.
- Additional testing requirement: Students must pass Praxis II, where applicable, for licensure.

Curriculum requirements

Courses	Credit hours
Foundations	6
EDUS 602 Adolescent Growth and Development or EDUS 607/PSYC 607 Advanced Educational Psychology	3
EDUS 673 Seminar on Education Issues, Ethics and Policy	3
Curriculum	18
TEDU 310 Practicum (taken concurrently with TEDU 537)	2
TEDU 310 Practicum (appropriate section for teaching discipline and taken concurrently with TEDU 540)	1
TEDU 537 Secondary School Curriculum	3
TEDU 548 Teaching Secondary School English	3
TEDU 562 Reading Instruction in the Content Areas	3

TEDU 588 Classroom Management	3
TEDU 681 Investigation and Trends in Teaching	3
Clinical	9
TEDU 672 Internship	4
TEDU 674 Internship II	5
Total graduate credit hours required (minimum)	33

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in history/social studies education

Program accreditation

National Council for Accreditation of Teacher Education

Graduate program director

Leila Christenbury, Ed.D.

Chair, Department of Teaching and Learning

lchriste@vcu.edu

(804) 828-1305

Additional contact

Gabriel Reich, Ph.D.

Secondary history/social studies program coordinator greich@vcu.edu

(804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in biology education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in chemistry education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in English education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in mathematics education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in physics education

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in history/social studies education			
Degree:	Semester(s)	Deadline	Test
C .: C .	of entry:	dates:	requirements:
Certificate	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Bachelor's degree with a major, or equivalent, in history, social studies, or related area
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Satisfactory scores on the GRE or MAT

There are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the Student Services Center section on the School of Education website for current testing requirements.

Additional program requirements: Admission to clinical experiences in schools requires a background check and fingerprinting.

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It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The post-baccalaureate Certificate in Teaching program is designed for students who have earned bachelor's degrees in fields other than education, who wish to become teachers in secondary schools in one or more subjects and for whom a master's degree is not a priority (applicants already may have earned a master's degree or wish to earn a master's degree in a specialized area of education later). Applicants must have a major or its equivalent in the subject they wish to teach.

Students are required to complete a minimum of 24 hours beyond the bachelor's level, including the courses listed below. Equivalent courses taken within the past five years may transfer; however, a minimum of 27 credit hours, including clinical experiences, must be taken at VCU after admission to the program.

Student learning outcomes

Persons completing the program are expected, among other attributes, to:

- Have an understanding of human development and learning theory appropriate to the age group they will teach
- 2. Demonstrate knowledge of the subjects they will teach
- 3. Develop an understanding of purposes for education and a defensible philosophical approach toward teaching
- Acquire awareness of the diversity of the school-age population in cultural background and styles of learning
- 5. Demonstrate an ability to plan and implement effective teaching
- Measure student learning in ways that lead to sustained development and learning

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- 1. Credit hour requirements: Students are required to complete a minimum of 33 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Student teaching requirements: Students must successfully complete approved student teaching experience.
- Additional testing requirement: Students must pass Praxis II, where applicable, for licensure.

Curriculum requirements

Courses	Credit hours
Foundations	6
EDUS 602 Adolescent Growth and Development or EDUS/PSYC 607 Advanced Educational Psychology for Elementary Teachers	3
EDUS 673 Seminar on Education Issues, Ethics and Policy	3
Curriculum	18
TEDU 310 Practicum (taken concurrently with TEDU 537)	2
TEDU 310 Practicum (appropriate section for teaching discipline and taken concurrently with TEDU 540)	1
TEDU 537 Secondary School Curriculum	3
TEDU 547 Teaching Secondary School Social Studies	3
TEDU 562 Reading Instruction in the Content Areas	3
TEDU 588 Classroom Management	3
TEDU 681 Investigation and Trends in Teaching	3
Clinical	9
TEDU 672 Internship	4
TEDU 674 Internship II	5
Total graduate credit hours required (minimum)	33

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in mathematics education

Program accreditation

National Council for Accreditation of Teacher Education

Graduate program director

Leila Christenbury, Ed.D. Chair, Department of Teaching and Learning lchriste@vcu.edu (804) 828-1305

Additional contact

Christine Trinter, Ph.D. Secondary mathematics program coordinator ctrinter@vcu.edu (804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in biology education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in chemistry education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in English education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in history/social studies education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in physics education

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in mathematics education			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Certificate	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree with a major, or equivalent, in mathematics
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests

- 4. Transcripts of all previous college work
- 5. Satisfactory scores on the GRE or MAT

There are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the Student Services Center section on the School of Education website for current testing requirements.

Additional program requirements: Admission to clinical experiences in schools requires a background check and fingerprinting.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The post-baccalaureate Certificate in Teaching program is designed for students who have earned bachelor's degrees in fields other than education, who wish to become teachers in secondary schools in one or more subjects and for whom a master's degree is not a priority (applicants already may have earned a master's degree or wish to earn a master's degree in a specialized area of education later). Applicants must have a major or its equivalent in the subject they wish to teach.

Students are required to complete a minimum of 24 hours beyond the bachelor's level, including the courses listed below. Equivalent courses taken within the past five years may transfer; however, a minimum of 27 credit hours, including clinical experiences, must be taken at VCU after admission to the program.

Student learning outcomes

Persons completing the program are expected, among other attributes, to:

- Have an understanding of human development and learning theory appropriate to the age group they will teach
- 2. Demonstrate knowledge of the subjects they will teach
- Develop an understanding of purposes for education and a defensible philosophical approach toward teaching
- Acquire awareness of the diversity of the school-age population in cultural background and styles of learning
- 5. Demonstrate an ability to plan and implement effective teaching
- Measure student learning in ways that lead to sustained development and learning

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

 Credit hour requirements: Students are required to complete a minimum of 33 credit hours depending on concentration.

- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Student teaching requirements: Students must successfully complete approved student teaching experience.
- Additional testing requirement: Students must pass Praxis II, where applicable, for licensure.

Curriculum requirements

Courses	Credit hours
Foundations	6
EDUS 602 Adolescent Growth and Development or	3
EDUS/PSYC 607 Advanced Educational Psychology for	
Elementary Teachers	
EDUS 673 Seminar on Education Issues, Ethics and Policy	3
Curriculum	18
TEDU 310 Practicum (taken concurrently with TEDU 537)	2
TEDU 310 Practicum (appropriate section for teaching	1
discipline and taken concurrently with TEDU 540)	
TEDU 537 Secondary School Curriculum	3
TEDU 545 Teaching Secondary School Mathematics	3
TEDU 562 Reading Instruction in the Content Areas	3
TEDU 588 Classroom Management	3
TEDU 681 Investigation and Trends in Teaching	3
Clinical	9
TEDU 672 Internship	4
TEDU 674 Internship II	5
Total graduate credit hours required (minimum)	33

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in physics education

Program accreditation

National Council for Accreditation of Teacher Education

Graduate program director

Leila Christenbury, Ed.D.

Chair, Department of Teaching and Learning lchriste@vcu.edu

(804) 828-1305

Additional contact

Jacqueline McDonnough, Ph.D. Secondary science education coordinator jtmcdonnough@vcu.edu

(804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in biology education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in chemistry education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in English education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in history/social studies education

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in mathematics education

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Teaching, Certificate in (Post-baccalaureate graduate certificate) with a concentration in physics education			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Certificate	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree with a major, or equivalent, in physics
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Satisfactory scores on the GRE or MAT

There are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the Student Services Center section on the School of Education website for current testing requirements.

Additional program requirements: Admission to clinical experiences in schools requires a background check and fingerprinting.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The post-baccalaureate Certificate in Teaching program is designed for students who have earned bachelor's degrees in fields other than education, who wish to become teachers in secondary schools in one or more subjects and for whom a master's degree is not a priority (applicants already may have earned a master's degree or wish to earn a master's degree in a specialized area of education later). Applicants must have a major or its equivalent in the subject they wish to teach.

Students are required to complete a minimum of 24 hours beyond the bachelor's level, including the courses listed below. Equivalent courses taken within the past five years may transfer; however, a minimum of 27 credit hours, including clinical experiences, must be taken at VCU after admission to the program.

Student learning outcomes

Persons completing the program are expected, among other attributes, to:

- 1. Have an understanding of human development and learning theory appropriate to the age group they will teach
- 2. Demonstrate knowledge of the subjects they will teach
- Develop an understanding of purposes for education and a defensible philosophical approach toward teaching
- Acquire awareness of the diversity of the school-age population in cultural background and styles of learning
- 5. Demonstrate an ability to plan and implement effective teaching
- Measure student learning in ways that lead to sustained development and learning

Degree requirements

In addition to the VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 33 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Student teaching requirements: Students must successfully complete approved student teaching experience.
- Additional testing requirement: Students must pass Praxis II, where applicable, for licensure.

Curriculum requirements

Courses	Credit hours
Foundations	6
EDUS 602 Adolescent Growth and Development or EDUS/PSYC 607 Advanced Educational Psychology for Elementary Teachers	3
EDUS 673 Seminar on Education Issues, Ethics and Policy	3
Curriculum	18
TEDU 310 Practicum (taken concurrently with TEDU 537)	2

TEDU 310 Practicum (appropriate section for teaching discipline and taken concurrently with TEDU 540)	1
TEDU 537 Secondary School Curriculum	3
TEDU 540 Teaching Middle and High School Sciences	3
TEDU 562 Reading Instruction in the Content Areas	3
TEDU 588 Classroom Management	3
TEDU 681 Investigation and Trends in Teaching	3
Clinical	9
TEDU 672 Internship	4
TEDU 674 Internship II	5
Total graduate credit hours required (minimum)	33

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Teaching, Master of (M.T.) with a concentration in biology education

Program accreditation

National Council for Accreditation of Teacher Education; Specialty Program Associations

Graduate program director

Leila M. Christenbury, Ed.D.

Chair, Department of Teaching and Learning lchriste@vcu.edu

(804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Teaching, Master of (M.T.) with concentration in chemistry education Teaching, Master of (M.T.) with concentration in early and elementary education Teaching, Master of (M.T.) with concentration in earth science education Teaching, Master of (M.T.) with concentration in English education Teaching, Master of (M.T.) with concentration in history/social studies education Teaching, Master of (M.T.) with concentration in mathematics education

Teaching, Master of (M.T.) with concentration in physics education Teaching, Master of (M.T.) with concentration in teaching health and physical education

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Teaching, Master of (M.T.) with a concentration in biology education			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.T.	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Bachelor's degree with a major, or equivalent, in the subject the student wishes to teach (for secondary) or an appropriate liberal arts major (for early/ elementary) (Students in the five-year extended program must be pursuing an appropriate bachelor's degree.)
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Satisfactory scores on the GRE or MAT

Additionally, there are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the Student Services Center section on the School of Education website for current testing requirements.

Admission to clinical experiences in schools requires a background check and fingerprinting.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Teaching curricula are designed to incorporate eligibility for initial teaching licensure in Virginia in early and elementary, secondary education (biology, chemistry, earth science, English, history, history and social studies, mathematics, physics) or health and physical education.

The approved curricula include undergraduate qualifying courses as well. Individuals pursuing the extended program are awarded undergraduate and graduate degrees simultaneously, baccalaureate degree recipients who meet the admission criteria also may pursue the Master of Teaching degree program, including the qualifying courses. The combined baccalaureate and Master of Teaching program requires a minimum of 153-154 hours, at least 33 of which must be at the graduate level.

Secondary education

The Master of Teaching program includes curricula that lead to endorsement in one of the following disciplines: biology, chemistry, drama, earth science, English, history/social studies, mathematics or physics.

In order to enroll in the program, students must apply and be accepted to both the Extended Teacher Preparation Program and the Graduate School. Admission information for the Extended Teacher Preparation Program is available in the School of Education section of this bulletin.

Student teaching requirements

All students pursuing a secondary education endorsement within the Master of Teaching program will student teach in the spring semester. To do so, students must take and pass the Virginia Communication and Literacy Assessment and their subject-specific Praxis II exams before the fall semester of the academic year in which they will student teach.

Student learning outcomes

Science education

- Demonstrate content knowledge in science: Candidates demonstrate content knowledge in science as evidenced by the Praxis II scores.
- Demonstrate conceptual content knowledge: Candidates demonstrate knowledge of the conceptual science to be taught and related fields, and that they are well-prepared in the breadth of knowledge needed to teach in their fields of licensure as evidenced by GPA in major courses.
- Can effectively plan classroom-based instruction: Candidates demonstrate the ability to plan effective classroom-based instruction and design assessments, consistent with goals of the National Science Education Standards as evidenced by the unit plan assessment.
- 4. Student teaching effectively apply knowledge, skills and dispositions: Candidates demonstrate knowledge, skills and dispositions are applied effectively in practice as evidenced by the clinical evaluation.
- 5. Demonstrate effects on student learning: Candidates demonstrate positive effects on student learning of major concepts, principles, theories, laws; the unifying concepts of science; the nature of science; the practice of inquiry (including student engagement in inquiry); analysis of issues related to science and technology; and the impact of science on themselves and their community as evidenced by the assessing student learning portion of the clinical evaluation.
- Preparation for legal, ethical and safety issues: Candidates demonstrate preparation in legal issues, safety and ethical treatment of living things as evidenced by the safety module assessment.
- 7. Knowledge of research and investigation in science: Candidates demonstrate knowledge of research and investigation in science and understand multiple forms of scientific inquiry; can design, conduct and report research in their field; and can use mathematics and appropriate technology to collect, process and explain data as evidenced by the student-generated research assessment.
- 8. Knowledge of the contextual content of science: Candidates demonstrate knowledge of the contextual content of science and have a strong understanding of the socially relevant issues, social context, history, philosophy and applications of science as evidenced by the nature of science reflection assignment.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- 1. Credit hour requirements: Students are required to complete a minimum of 33-34 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Student teaching requirements: Students must successfully complete approved student teaching experience.
- Additional testing requirement: Students must pass Praxis II, where applicable, for licensure.

Curriculum requirements

Courses	Credit hours
Qualifying courses (taken as an undergraduate)	
EDUS 301 Human Development and Learning	3
Major courses (as undergraduate science majors) including genetics/molecular biology, botany, zoology, anatomy/human physiology, ecology, two physics and one earth science	
Admission to teacher preparation is a prerequisite for the following courses:	
TEDU 310 Practicum (secondary; must be taken concurrently with TEDU 537)	1-3
TEDU 537 Secondary School Curriculum	3
TEDU 310 Practicum (science; must be taken concurrently with TEDU 540)	1-3
TEDU 540 Teaching Middle and High School Sciences (fall only)	3
Required courses	
EDUS 617/PSYC 657 Advanced Educational Psychology for Secondary Teachers	3
EDUS 673 Seminar on Educational Issues, Ethics and Policy	3
TEDU 562 Reading Instruction in the Content Areas	3
TEDU 588 Classroom Management	3
Clinical experience (spring only)	
TEDU 672 Internship	1-6
TEDU 674 Internship II	1-6
TEDU 681 Investigation and Trends in Teaching (must be taken concurrently with TEDU 672 and TEDU 674)	1 or 3

Other curricular options

Students who already possess a content major in a discipline appropriate for secondary education may pursue a post-baccalaureate certificate.

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Teaching, Master of (M.T.) with a concentration in chemistry education

Program accreditation

National Council for Accreditation of Teacher Education; Specialty Program Associations

Graduate program director Leila M. Christenbury, Ed.D.

Chair, Department of Teaching and Learning lchriste@vcu.edu (804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Teaching, Master of (M.T.) with concentration in biology education
Teaching, Master of (M.T.) with concentration in early and elementary education
Teaching, Master of (M.T.) with concentration in earth science education
Teaching, Master of (M.T.) with concentration in English education
Teaching, Master of (M.T.) with concentration in history/social studies education
Teaching, Master of (M.T.) with concentration in mathematics education
Teaching, Master of (M.T.) with concentration in physics education
Teaching, Master of (M.T.) with concentration in teaching health and physical

Apply online at graduate.admissions.vcu.edu.

Admission requirements

education

33-34

Teaching, Master of (M.T.) with a concentration in chemistry education			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.T.	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree with a major, or equivalent, in the subject the student wishes to teach (for secondary) or an appropriate liberal arts major (for early/ elementary) (Students in the five-year extended program must be pursuing an appropriate bachelor's degree.)
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Satisfactory scores on the GRE or MAT

Additionally, there are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the Student Services Center section on the School of Education website for current testing requirements.

Admission to clinical experiences in schools requires a background check and fingerprinting.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Teaching curricula are designed to incorporate eligibility for initial teaching licensure in Virginia in early and elementary, secondary education (biology, chemistry, earth science, English, history, history and social studies, mathematics, physics) or health and physical education.

The approved curricula include undergraduate qualifying courses as well. Individuals pursuing the extended program are awarded undergraduate and graduate degrees simultaneously; baccalaureate degree recipients who meet the admission criteria also may pursue the Master of Teaching degree program, including the qualifying courses. The combined baccalaureate and Master of Teaching program requires a minimum of 153-154 hours, at least 33 of which must be at the graduate level.

Secondary education

The Master of Teaching program includes curricula that lead to endorsement in one of the following disciplines: biology, chemistry, drama, earth science, English, history/social studies, mathematics or physics.

In order to enroll in the program, students must apply and be accepted to both the Extended Teacher Preparation Program and the Graduate School. Admission information for the Extended Teacher Preparation Program is available in the School of Education section of this bulletin.

Student teaching requirements

All students pursuing a secondary education endorsement within the Master of Teaching program will student teach in the spring semester. To do so, students must take and pass the Virginia Communication and Literacy Assessment and their subject-specific Praxis II exams before the fall semester of the academic year in which they will student teach.

Student learning outcomes

Science education

- Demonstrate content knowledge in science: Candidates demonstrate content knowledge in science as evidenced by the Praxis II scores.
- Demonstrate conceptual content knowledge: Candidates demonstrate knowledge of the conceptual science to be taught and related fields, and that they are well-prepared in the breadth of knowledge needed to teach in their fields of licensure as evidenced by GPA in major courses.
- Can effectively plan classroom-based instruction: Candidates demonstrate the ability to plan effective classroom-based instruction and design assessments, consistent with goals of the National Science Education Standards as evidenced by the unit plan assessment.
- 4. Student teaching effectively apply knowledge, skills and dispositions: Candidates demonstrate knowledge, skills and dispositions are applied effectively in practice as evidenced by the clinical evaluation.
- 5. Demonstrate effects on student learning: Candidates demonstrate positive effects on student learning of major concepts, principles, theories, laws; the unifying concepts of science; the nature of science; the practice of inquiry (including student engagement in inquiry); analysis of issues related to science and technology; and the impact of science on themselves and their community as evidenced by the assessing student learning portion of the clinical evaluation.

- Preparation for legal, ethical and safety issues: Candidates demonstrate preparation in legal issues, safety and ethical treatment of living things as evidenced by the safety module assessment.
- 7. Knowledge of research and investigation in science: Candidates demonstrate knowledge of research and investigation in science and understand multiple forms of scientific inquiry; can design, conduct and report research in their field; and can use mathematics and appropriate technology to collect, process and explain data as evidenced by the student-generated research assessment.
- 8. Knowledge of the contextual content of science: Candidates demonstrate knowledge of the contextual content of science and have a strong understanding of the socially relevant issues, social context, history, philosophy and applications of science as evidenced by the nature of science reflection assignment.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 33-34 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- 3. Student teaching requirements: Students must successfully complete approved student teaching experience.
- Additional testing requirement: Students must pass Praxis II, where applicable, for licensure.

Curriculum requirements

Courses		Credit hours
Qualifying co	urses (taken as an undergraduate)	
EDUS 301 Hu	man Development and Learning	3
inorganic chem	(as undergraduate science majors) including nistry, organic chemistry, physical chemistry, nistry, two physics, two general biology and one	
Admission to t following cour	eacher preparation is a prerequisite for the sees:	
TEDU 310 Pra with TEDU 53	acticum (secondary; must be taken concurrently 7)	1-3
TEDU 537 Sec	condary School Curriculum	3
TEDU 310 Pra TEDU 540)	acticum (science; must be taken concurrently with	1-3
TEDU 540 Tea only)	aching Middle and High School Sciences (fall	3
Required cour	rses	
EDUS 617/PS Secondary Tea	YC 657 Advanced Educational Psychology for chers	3
EDUS 673 Ser	minar on Educational Issues, Ethics and Policy	3
TEDU 562 Rea	ading Instruction in the Content Areas	3
TEDU 588 Cla	assroom Management	3
Clinical exper	ience (spring only)	
TEDU 672 Into	ernship	1-6
TEDU 674 Into	•	1-6
	restigation and Trends in Teaching (must be taken with TEDU 672 and TEDU 674)	1 or 3
Total graduat	e credit hours required (minimum)	33-34

Other curricular options

Students who already possess a content major in a discipline appropriate for secondary education may pursue a post-baccalaureate certificate.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Degree candidacy requirements



Graduation requirements

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Graduation requirements



Teaching, Master of (M.T.) with a concentration in early and elementary education

Program accreditation

(804) 828-1305

National Council for Accreditation of Teacher Education; Specialty Program Associations

Graduate program director Leila M. Christenbury, Ed.D.

Chair, Department of Teaching and Learning lchriste@vcu.edu

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Teaching, Master of (M.T.) with concentration in biology education

Teaching, Master of (M.T.) with concentration in chemistry education

Teaching, Master of (M.T.) with concentration in earth science education

Teaching, Master of (M.T.) with concentration in English education

Teaching, Master of (M.T.) with concentration in history/social studies education

Teaching, Master of (M.T.) with concentration in mathematics education

Teaching, Master of (M.T.) with concentration in physics education

Teaching, Master of (M.T.) with concentration in teaching health and physical education

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Teaching, Master of (M.T.) with a concentration in early and elementary education			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.T.	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Bachelor's degree with a major, or equivalent, in the subject the student wishes to teach (for secondary) or an appropriate liberal arts major (for early/ elementary) (Students in the five-year extended program must be pursuing an appropriate bachelor's degree.)
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
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VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The Master of Teaching curricula are designed to incorporate eligibility for initial teaching licensure in Virginia in early and elementary, secondary education (biology, chemistry, earth science, English, history, history and social studies, mathematics, physics) or health and physical education.

The approved curricula include undergraduate qualifying courses as well. Individuals pursuing the extended program are awarded undergraduate and graduate degrees simultaneously; baccalaureate degree recipients who meet the admission criteria also may pursue the Master of Teaching degree program, including the qualifying courses. The combined baccalaureate and Master of Teaching program requires a minimum of 153-154 hours, at least 33 of which must be at the graduate level.

Early and elementary education

Freshman students bound for the Master of Teaching program with a concentration in early and elementary education are required to enroll in the Bachelor of Interdisciplinary Studies with a liberal studies for early and elementary education

major. This program offers liberal studies curriculum designed through an interdisciplinary collaboration among professors in the College of Humanities and Sciences and the School of Education in consultation with successful area teachers. It targets core knowledge across the four major subject areas represented in Virginia's Standards of Learning (mathematics, sciences, social sciences and language arts/communication) while also providing a university-level skill set and knowledge base. Throughout the undergraduate program, contact with area schools and young learners is programmed into service and experiential learning venues

Transfer students intending to be elementary teachers (and completing the Master of Teaching with a concentration in early and elementary education) are required to meet with advisers for the LSEEE major prior to registering for courses. Advisers will evaluate all courses successfully completed outside of the LSEEE major prescribed curriculum (from VCU or elsewhere) to determine their transferability to the LSEEE major.

LSEEE majors are encouraged to select at least one minor in order to deepen knowledge and appreciation of a subject area. Philosophy, religious studies, African American studies and international studies have relevance in their understanding of human investigation of knowledge, human behavior and world cultures. A minor in a science area like environmental studies may be more "employable" because of school and societal concerns about our planet and its preservation. In selecting the humanities and sciences minor, the choice should be based on the student's interest and perceived relevance.

Consult with the appropriate professional studies adviser for additional information regarding professional studies and liberal arts requirements.

Student teaching requirements

All students pursuing a secondary education endorsement within the Master of Teaching program will student teach in the spring semester. To do so, students must take and pass the Virginia Communication and Literacy Assessment and their subject-specific Praxis II exams before the fall semester of the academic year in which they will student teach.

Student learning outcomes

Early and elementary education

- Candidates will master content knowledge: Candidates demonstrate content knowledge in the disciplines to be taught in an elementary classroom as evidenced by performance on Praxis II and the liberal arts equivalency GPA.
- Candidates demonstrate ability to plan instruction: Candidates demonstrate that they can effectively plan classroom-based instruction as evidenced by the read-aloud lesson plan.
- Measure candidate performance in internship: Candidates demonstrate application of knowledge, skills and dispositions in practice as evidenced by the clinical evaluation continuum.
- Assess candidate effect on student learning: Assess candidate's effect on student learning as evidenced by success on the practicum B lesson plans in math, science and social studies.
- Assess candidate success on developmental project: Candidates will demonstrate competence in developing unit lesson plans as evidenced by the TEDU 414 unit plan.
- Assess candidate success on activity project: Candidates will demonstrate competence in developing student activity plans by success on the health and PE movement experience activity project.
- 7. Assess ability to integrate the arts in lesson: Demonstrate that candidates know, understand and use basic communication in the arts, can analyze art from structural, historical and cultural perspectives, and has an informed acquaintance with art from varied cultural and historical periods, and further demonstrate that candidates are able to integrate art in a basic content lesson by success on the learning center notebook project

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

 Credit hour requirements: Students are required to complete a minimum of 33-34 credit hours depending on concentration.

- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Student teaching requirements: Students must successfully complete approved student teaching experience.
- Additional testing requirement: Students must pass Praxis II, where applicable, for licensure.

Curriculum requirements

Program requirements - mathematics and statistical reasoning

The general education requirement is three to six credit hours; the early childhood/ elementary education program requirement is six credit hours, including three credit hours in mathematics at the college algebra level or higher and three credit hours in a statistics course typically taught by a college department of mathematics. Choosing among these courses is recommended:

Courses	Credit hours
MATH 131 Introduction to Contemporary Mathematics	3
STAT 208 Statistical Thinking	3
STAT 210 Basic Practice of Statistics	3

Program requirements - natural sciences

The general education requirement is seven to nine credit hours, with one course each from the physical sciences and the biological sciences, with at least one laboratory; the early childhood/elementary education program requirement is 12 credit hours, again with at least one course each in the physical sciences and the biological sciences and two laboratories. Choosing among these courses is recommended:

Courses	Credit hours
Biological sciences	
BIOL and BIOZ 101 Biological Concepts and Laboratory	4
BIOL/ENVS 103 Environmental Science and Laboratory	5
Physical sciences	
CHEM 110 and CHEZ 110 Chemistry and Society and	4
Laboratory	
CHEM 112 Chemistry in the News	3
PHYS 101 and PHYZ 101 Foundations of Physics and	4
Laboratory	
PHYS 107 Wonders of Technology	4

Program requirements – applied arts

Two to three credit hours in applied arts to be designated with the professional studies adviser.

Courses	Credit hours
Professional studies requirements	58-59
Undergraduate courses	25-26
EDUS 301 Human Development and Learning or PSYC 301 Child Psychology	3
HPEX 390 Physical Education for the Elementary Teacher	3
TEDU 310 Practicum A (taken with TEDU 414 and TEDU 426)	2
TEDU 310 Practicum B (taken with TEDU 517, 522 and 591)	2
TEDU/ENGL 386 Children's Literature I	3
TEDU 410 Classroom Management in Elementary Schools	3
TEDU 411 Integrating the Arts in Curriculum for Young Children, ARTE 301 Art for Elementary Teachers or other applied arts	2-3
TEDU 414 Curriculum and Methods for Early/Elementary Children	4
TEDU 426 Teaching Reading and Other Language Arts	3

Graduate courses

EDUS 607/PSYC 607 Advanced Educational Psychology for Elementary Teachers	3
EDUS 673 Seminar on Educational Issues Ethics and Policy	3
SEDP 505 Theory and Practice of Educating Individuals with	3
Special Needs	3
TEDU 517 Science Education in the Elementary School	3
TEDU 522 Teaching Mathematics for Elementary Education	3
TEDU 566 Diagnosis and Remediation in Reading	4
TEDU 591 Social Studies Education in the Elementary School	3
TEDU 626 Home-School Communication and Collaboration	3
TEDU 672 Internship	4
TEDU 674 Internship II	4
TEDU 681 Investigations and Trends in Teaching	1
Total graduate credit hours required (minimum)	34
Note: At least 33 credit hours must be taken at the graduate level.	

Other curricular options

Students who already possess a content major in a discipline appropriate for secondary education may pursue a post-baccalaureate certificate.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Teaching, Master of (M.T.) with a concentration in earth science education

Program accreditation

National Council for Accreditation of Teacher Education; Specialty Program Associations

Graduate program director Leila M. Christenbury, Ed.D.

Chair, Department of Teaching and Learning lchriste@vcu.edu (804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Teaching, Master of (M.T.) with concentration in biology education Teaching, Master of (M.T.) with concentration in chemistry education Teaching, Master of (M.T.) with concentration in early and elementary education Teaching, Master of (M.T.) with concentration in English education Teaching, Master of (M.T.) with concentration in history/social studies education Teaching, Master of (M.T.) with concentration in mathematics education Teaching, Master of (M.T.) with concentration in physics education Teaching, Master of (M.T.) with concentration in teaching health and physical

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Teaching, Master of (M.T.) with a concentration in earth science education			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.T.	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Bachelor's degree with a major, or equivalent, in the subject the student wishes to teach (for secondary) or an appropriate liberal arts major (for early/ elementary) (Students in the five-year extended program must be pursuing an appropriate bachelor's degree.)
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Satisfactory scores on the GRE or MAT

Additionally, there are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the Student Services Center section on the School of Education website for current testing requirements.

Admission to clinical experiences in schools requires a background check and fingerprinting.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Teaching curricula are designed to incorporate eligibility for initial teaching licensure in Virginia in early and elementary, secondary education

(biology, chemistry, earth science, English, history, history and social studies, mathematics, physics) or health and physical education.

The approved curricula include undergraduate qualifying courses as well. Individuals pursuing the extended program are awarded undergraduate and graduate degrees simultaneously; baccalaureate degree recipients who meet the admission criteria also may pursue the Master of Teaching degree program, including the qualifying courses. The combined baccalaureate and Master of Teaching program requires a minimum of 153-154 hours, at least 33 of which must be at the graduate level.

Secondary education

The Master of Teaching program includes curricula that lead to endorsement in one of the following disciplines: biology, chemistry, drama, earth science, English, history/social studies, mathematics or physics.

In order to enroll in the program, students must apply and be accepted to both the Extended Teacher Preparation Program and the Graduate School. Admission information for the Extended Teacher Preparation Program is available in the School of Education section of this bulletin.

Student teaching requirements

All students pursuing a secondary education endorsement within the Master of Teaching program will student teach in the spring semester. To do so, students must take and pass the Virginia Communication and Literacy Assessment and their subject-specific Praxis II exams before the fall semester of the academic year in which they will student teach.

Student learning outcomes

Science education

- Demonstrate content knowledge in science: Candidates demonstrate content knowledge in science as evidenced by the Praxis II scores.
- Demonstrate conceptual content knowledge: Candidates demonstrate knowledge of the conceptual science to be taught and related fields, and that they are well-prepared in the breadth of knowledge needed to teach in their fields of licensure as evidenced by GPA in major courses.
- Can effectively plan classroom-based instruction: Candidates demonstrate the ability to plan effective classroom-based instruction and design assessments, consistent with goals of the National Science Education Standards as evidenced by the unit plan assessment.
- 4. Student teaching effectively apply knowledge, skills and dispositions: Candidates demonstrate knowledge, skills and dispositions are applied effectively in practice as evidenced by the clinical evaluation.
- 5. Demonstrate effects on student learning. Candidates demonstrate positive effects on student learning of major concepts, principles, theories, laws; the unifying concepts of science; the nature of science; the practice of inquiry (including student engagement in inquiry); analysis of issues related to science and technology; and the impact of science on themselves and their community as evidenced by the assessing student learning portion of the clinical evaluation.
- Preparation for legal, ethical and safety issues: Candidates demonstrate preparation in legal issues, safety and ethical treatment of living things as evidenced by the safety module assessment.
- 7. Knowledge of research and investigation in science: Candidates demonstrate knowledge of research and investigation in science and understand multiple forms of scientific inquiry; can design, conduct and report research in their field; and can use mathematics and appropriate technology to collect, process and explain data as evidenced by the student-generated research assessment.
- 8. Knowledge of the contextual content of science: Candidates demonstrate knowledge of the contextual content of science and have a strong understanding of the socially relevant issues, social context, history, philosophy and applications of science as evidenced by the nature of science reflection assignment.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

 Credit hour requirements: Students are required to complete a minimum of 33-34 credit hours depending on concentration.

- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Student teaching requirements: Students must successfully complete approved student teaching experience.
- Additional testing requirement: Students must pass Praxis II, where applicable, for licensure.

Curriculum requirements

Qualifying courses (taken as an undergraduate) EDUS 301 Human Development and Learning Major courses (as undergraduate science majors) including oceanography, meteorology/climatology, astronomy, geology, ecology, two general biology, two physics and two general chemistry	3
Major courses (as undergraduate science majors) including oceanography, meteorology/climatology, astronomy, geology, ecology, two general biology, two physics and two general	3
oceanography, meteorology/climatology, astronomy, geology, ecology, two general biology, two physics and two general	
Admission to teacher preparation is a prerequisite for the following courses	
TEDU 310 Practicum (secondary; must be taken concurrently with TEDU 537)	1-3
TEDU 537 Secondary School Curriculum	3
TEDU 310 Practicum (science; must be taken concurrently with TEDU 540)	1-3
TEDU 540 Teaching Middle and High School Sciences (fall only)	3
Required courses	
EDUS 617/PSYC 657 Advanced Educational Psychology for Secondary Teachers	3
EDUS 673 Seminar on Educational Issues, Ethics and Policy	3
TEDU 562 Reading Instruction in the Content Areas	3
TEDU 588 Classroom Management	3
Clinical experience (spring only)	
TEDU 672 Internship	1-6
TEDU 674 Internship II	1-6
TEDU 681 Investigation and Trends in Teaching (must be taken concurrently with TEDU 672 and TEDU 674)	1 or 3
Total graduate credit hours required (minimum)	33-34

Other curricular options

Students who already possess a content major in a discipline appropriate for secondary education may pursue a post-baccalaureate certificate.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

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Graduation requirements



Teaching, Master of (M.T.) with a concentration in English education

Program accreditation

National Council for Accreditation of Teacher Education; Specialty Program Associations

Graduate program director Leila M. Christenbury, Ed.D.

Chair, Department of Teaching and Learning lchriste@vcu.edu (804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Teaching, Master of (M.T.) with concentration in biology education

Teaching, Master of (M.T.) with concentration in chemistry education

Teaching, Master of (M.T.) with concentration in early and elementary education

Teaching, Master of (M.T.) with concentration in earth science education

Teaching, Master of (M.T.) with concentration in history/social studies education

Teaching, Master of (M.T.) with concentration in mathematics education

Teaching, Master of (M.T.) with concentration in physics education

Teaching, Master of (M.T.) with concentration in teaching health and physical education

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Teaching, Master of (M.T.) with a concentration in English education			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.T.	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Bachelor's degree with a major, or equivalent, in the subject the student wishes to teach (for secondary) or an appropriate liberal arts major (for early/ elementary) (Students in the five-year extended program must be pursuing an appropriate bachelor's degree.)
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Satisfactory scores on the GRE or MAT

Additionally, there are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the Student Services Center section on the School of Education website for current testing requirements.

Admission to clinical experiences in schools requires a background check and fingerprinting.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Teaching curricula are designed to incorporate eligibility for initial teaching licensure in Virginia in early and elementary, secondary education (biology, chemistry, earth science, English, history, history and social studies, mathematics, physics) or health and physical education.

The approved curricula include undergraduate qualifying courses as well. Individuals pursuing the extended program are awarded undergraduate and graduate degrees simultaneously; baccalaureate degree recipients who meet the admission criteria also may pursue the Master of Teaching degree program, including the qualifying courses. The combined baccalaureate and Master of Teaching program requires a minimum of 153-154 hours, at least 33 of which must be at the graduate level.

Secondary education

The Master of Teaching program includes curricula that lead to endorsement in one of the following disciplines: biology, chemistry, drama, earth science, English, history/social studies, mathematics or physics.

In order to enroll in the program, students must apply and be accepted to both the Extended Teacher Preparation Program and the Graduate School. Admission information for the Extended Teacher Preparation Program is available in the School of Education section of this bulletin.

Student teaching requirements

All students pursuing a secondary education endorsement within the Master of Teaching program will student teach in the spring semester. To do so, students must take and pass the Virginia Communication and Literacy Assessment and their subject-specific Praxis II exams before the fall semester of the academic year in which they will student teach.

Student learning outcomes

English education

- Candidates demonstrate content knowledge in the English: Candidates demonstrate content knowledge in the English language arts as evidenced by Praxis II scores and the undergraduate transcript analysis.
- Candidates demonstrate ability to plan instruction: Candidates demonstrate
 that they can effectively plan classroom-based instructions evidenced by the
 lesson plan assessment, lesson plan portion of the portfolio and the clinical
 evaluation continuum.
- Measure candidate performance in internship: Candidates demonstrate that knowledge, skills and dispositions are applied effectively in practice as evidenced by the clinical evaluation continuum.
- Assess candidate effect on student learning: Candidates demonstrate effect on student learning as evidenced by success on the lesson plan portion of the portfolio.

5. Candidates demonstrate NCTE standards proficiency: Candidates further demonstrate proficiency on NCTE competencies as evidenced by the dispositions assessment.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 33-34 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Student teaching requirements: Students must successfully complete approved student teaching experience.
- Additional testing requirement: Students must pass Praxis II, where applicable, for licensure.

Curriculum requirements

Courses	Credit hours
Qualifying courses (taken as an undergraduate)	
EDUS 301 Human Development and Learning	3
Admission to teacher preparation is a prerequisite for the following courses	
TEDU 310 Practicum (secondary; must be taken concurrently with TEDU 537)	1-3
TEDU 537 Secondary School Curriculum	3
TEDU 310 Practicum (English; must be taken concurrently with TEDU 540)	h 1-3
TEDU 548 Teaching Secondary School English (fall only)	3
Required courses	
EDUS 617/PSYC 657 Advanced Educational Psychology for Secondary Teachers	3
EDUS 673 Seminar on Educational Issues, Ethics and Policy	3
TEDU 562 Reading Instruction in the Content Areas	3
TEDU 588 Classroom Management	3
Clinical experience (spring only)	
TEDU 672 Internship	1-6
TEDU 674 Internship II	1-6
TEDU 681 Investigation and Trends in Teaching (must be taker concurrently with TEDU 672 and TEDU 674)	1 or 3
Total graduate credit hours required (minimum)	33-34

Other curricular options

Students who already possess a content major in a discipline appropriate for secondary education may pursue a post-baccalaureate certificate.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduation requirements



Teaching, Master of (M.T.) with a concentration in history/ social studies education

Program accreditation

National Council for Accreditation of Teacher Education; Specialty Program Associations

Graduate program director

Leila M. Christenbury, Ed.D.

Chair, Department of Teaching and Learning

lchriste@vcu.edu

(804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular

Teaching, Master of (M.T.) with concentration in biology education

Teaching, Master of (M.T.) with concentration in chemistry education

Teaching, Master of (M.T.) with concentration in early and elementary education

Teaching, Master of (M.T.) with concentration in earth science education

Teaching, Master of (M.T.) with concentration in English education

Teaching, Master of (M.T.) with concentration in mathematics education Teaching, Master of (M.T.) with concentration in physics education

Teaching, Master of (M.T.) with concentration in teaching health and physical

education

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Teaching, Master of (M.T.) with a concentration in history/social studies education			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.T.	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- 1. Bachelor's degree with a major, or equivalent, in the subject the student wishes to teach (for secondary) or an appropriate liberal arts major (for early/ elementary) (Students in the five-year extended program must be pursuing an appropriate bachelor's degree.)
- Three letters of recommendation addressing the student's potential for graduate study in education
- Student's written statement concerning career interests
- Transcripts of all previous college work
- Satisfactory scores on the GRE or MAT

Additionally, there are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the <u>Student Services Center</u> section on the School of Education website for current testing requirements.

Admission to clinical experiences in schools requires a background check and fingerprinting.

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The Master of Teaching curricula are designed to incorporate eligibility for initial teaching licensure in Virginia in early and elementary, secondary education (biology, chemistry, earth science, English, history, history and social studies, mathematics, physics) or health and physical education.

The approved curricula include undergraduate qualifying courses as well. Individuals pursuing the extended program are awarded undergraduate and graduate degrees simultaneously, baccalaureate degree recipients who meet the admission criteria also may pursue the Master of Teaching degree program, including the qualifying courses. The combined baccalaureate and Master of Teaching program requires a minimum of 153-154 hours, at least 33 of which must be at the graduate level.

Secondary education

The Master of Teaching program includes curricula that lead to endorsement in one of the following disciplines: biology, chemistry, drama, earth science, English, history/social studies, mathematics or physics.

In order to enroll in the program, students must apply and be accepted to both the Extended Teacher Preparation Program and the Graduate School. Admission information for the Extended Teacher Preparation Program is available in the School of Education section of this bulletin.

Student teaching requirements

All students pursuing a secondary education endorsement within the Master of Teaching program will student teach in the spring semester. To do so, students must take and pass the Virginia Communication and Literacy Assessment and their subject-specific Praxis II exams before the fall semester of the academic year in which they will student teach.

Student learning outcomes

History/social studies education

- Demonstrate content knowledge in social studies: Candidates demonstrate content knowledge in social studies as evidenced by the Praxis II scores and unit plan assessment in TEDU 547.
- Can effectively plan classroom-based instruction: Candidates demonstrate that they can effectively plan classroom-based instruction as evidenced by the lesson plan assessments in TEDU 547 and TEDU 681.

- 3. Student teaching effectively apply knowledge, skills and dispositions: Candidates demonstrate that knowledge, skills and dispositions are applied effectively in practice as evidenced by clinical evaluations.
- Demonstrate effects on student learning: Candidates demonstrate effects on student learning as evidenced by the portfolio: student work, reflections, case study and rubric for student teaching.
- Candidates demonstrate National Council for the Social Studies standards proficiency: Candidates further demonstrate proficiency on NCSS competencies as evidenced by the unit plan assessment in TEDU 547. This objective addresses NCATE Standard 1 – "Candidate Knowledge, Skills and Dispositions."

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 33-34 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Student teaching requirements: Students must successfully complete approved student teaching experience.
- 4. Additional testing requirement: Students must pass Praxis II, where applicable, for licensure.

Credit hours

Curriculum requirements

Courses	Credit hours
Qualifying courses (taken as an undergraduate)	
EDUS 301 Human Development and Learning	3
Major courses (as undergraduate history majors) in political science (12 credit hours), including six credit hours 100-level U.S. and international politics and six credit hours 300-level local and international politics; geography (nine credit hours), including three credit hours of physical geography and six credit hours of cultural geography; and economics (six credit hours), including macro- and microeconomics or (as undergraduate political science majors) in history (18 credit hours); geography (nine credit hours), including three credit hours of physical geography and six credit hours of cultural geography; and economics (six credit hours), including macro- and microeconomics	
Admission to teacher preparation is a prerequisite for the following courses:	
TEDU 310 Practicum (secondary; must be taken concurrently with TEDU 537)	1-3
TEDU 537 Secondary School Curriculum	3
TEDU 310 Practicum (history/social studies; must be taken concurrently with TEDU 547)	1-3
TEDU 547 Teaching Secondary School Social Studies (fall only)	3
Required courses	
EDUS/PSYC 607 Advanced Educational Psychology for Elementary Teachers	3
EDUS 617/PSYC 657 Advanced Educational Psychology for Secondary Teachers	3
EDUS 673 Seminar on Educational Issues, Ethics and Policy	3
TEDU 562 Reading Instruction in the Content Areas	3
TEDU 588 Classroom Management	3
Elective (choose one of the following courses)	3
EDUS 610 Social Foundations of Education	3
SEDP 505 Theory and Practice of Educating Individuals with Special Needs	3

SEDP 531 Educational Foundations for Collaboration and Universally Designed Learning	3
SEDP 631 Classroom Management and Behavior Support for Students with Disabilities	3
TEDU 556 Advanced Computer Applications in Education	3

Clinical experience (spring only)

TEDU 672 Internship	1-6
TEDU 674 Internship II	1-6
TEDU 681 Investigation and Trends in Teaching (must be taken	1 or 3
concurrently with TEDU 672 and TEDU 674)	

Total graduate credit hours required (minimum) 33-34

Other curricular options

Students who already possess a content major in a discipline appropriate for secondary education may pursue a post-baccalaureate certificate.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Teaching, Master of (M.T.) with a concentration in mathematics education

Program accreditation

National Council for Accreditation of Teacher Education; Specialty Program Associations

Graduate program director

Leila M. Christenbury, Ed.D.
Chair, Department of Teaching and Learning lchriste@vcu.edu
(804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Teaching, Master of (M.T.) with concentration in biology education Teaching, Master of (M.T.) with concentration in chemistry education Teaching, Master of (M.T.) with concentration in early and elementary education Teaching, Master of (M.T.) with concentration in earth science education Teaching, Master of (M.T.) with concentration in English education Teaching, Master of (M.T.) with concentration in history/social studies education Teaching, Master of (M.T.) with concentration in physics education Teaching, Master of (M.T.) with concentration in teaching health and physical education

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Teaching, Master of (M.T.) with a concentration in mathematics education			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.T.	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Bachelor's degree with a major, or equivalent, in the subject the student wishes to teach (for secondary) or an appropriate liberal arts major (for early/ elementary) (Students in the five-year extended program must be pursuing an appropriate bachelor's degree.)
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Satisfactory scores on the GRE or MAT

Additionally, there are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the Student Services Center section on the School of Education website for current testing requirements.

Admission to clinical experiences in schools requires a background check and fingerprinting.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The Master of Teaching curricula are designed to incorporate eligibility for initial teaching licensure in Virginia in early and elementary, secondary education (biology, chemistry, earth science, English, history, history and social studies, mathematics, physics) or health and physical education.

The approved curricula include undergraduate qualifying courses as well. Individuals pursuing the extended program are awarded undergraduate and graduate degrees simultaneously; baccalaureate degree recipients who meet the admission criteria also may pursue the Master of Teaching degree program, including the qualifying courses. The combined baccalaureate and Master of Teaching program requires a minimum of 153-154 hours, at least 33 of which must be at the graduate level.

Secondary education

The Master of Teaching program includes curricula that lead to endorsement in one of the following disciplines: biology, chemistry, drama, earth science, English, history/social studies, mathematics or physics.

In order to enroll in the program, students must apply and be accepted to both the Extended Teacher Preparation Program and the Graduate School. Admission information for the Extended Teacher Preparation Program is available in the School of Education section of this bulletin.

Student teaching requirements

All students pursuing a secondary education endorsement within the Master of Teaching program will student teach in the spring semester. To do so, students must take and pass the Virginia Communication and Literacy Assessment and their subject-specific Praxis II exams before the fall semester of the academic year in which they will student teach.

Student learning outcomes

Mathematics education

- 1. Demonstrate content knowledge in mathematics: Candidates demonstrate content knowledge in mathematics as evidenced by the Praxis II scores and undergraduate mathematics GPAs. This objective addresses NCATE Standard 1 - "Candidate Knowledge, Skills and Dispositions."
- 2. Can effectively plan classroom-based instruction: Candidates demonstrate that they can effectively plan classroom-based instruction as evidenced by the unit-lesson plans, student handouts, assessments and video tape portions of the portfolio assessment.
- Student teaching effectively apply knowledge, skills and dispositions: Candidates demonstrate that knowledge, skills and dispositions are applied effectively in practice as evidenced by clinical evaluations.
- Demonstrate effects on student learning: Candidates demonstrate effects on student learning as evidenced by lesson plan portion of the portfolio assessment and the clinical evaluation continuum.
- Candidates demonstrate National Council of Teachers of Mathematics standards proficiency: Candidates further demonstrate proficiency on NCTM competencies as evidenced by the technology lesson plans and the problemsolving lesson plans.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 33-34 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Student teaching requirements: Students must successfully complete approved student teaching experience.
- Additional testing requirement: Students must pass Praxis II, where applicable, for licensure.

Curriculum requirements

Courses Credit hours

Qualifying courses (taken as an undergraduate) EDUS 301 Human Development and Learning

3

Major courses (as undergraduate mathematics majors): Students should be enrolled in VCU's 41-credit-hour secondary mathematics teacher preparation concentration within the

baccalaureate mathematics program or have completed a degree in mathematics from an accredited university as a prerequisite to the M.T. degree program.

Admission to teacher preparation is a prerequisite for the
following courses
TEDIL 310 Practicum (secondary: must be taken concurrently

TEDU 310 Practicum (secondary; must be taken concurrently	1-3
with TEDU 537)	
TEDU 537 Secondary School Curriculum	3
TEDU 310 Practicum (mathematics; must be taken concurrently	1-3
with TEDU 545)	
TEDU 545 Teaching Secondary School Mathematics (fall only)	3

Required courses	
EDUS 617/PSYC 657 Advanced Educational Psychology for	3
Secondary Teachers	
EDUS 673 Seminar on Educational Issues, Ethics and Policy	3
TEDU 521 Teaching Mathematics for Middle Education	3
TEDU 562 Reading Instruction in the Content Areas	3
TEDU 588 Classroom Management	3

Clinical experience (spring only)

TEDU 672 Internship	1-6
TEDU 674 Internship II	1-6
TEDU 681 Investigation and Trends in Teaching (must be taken	1 or 3
concurrently with TEDU 672 and TEDU 674)	

33-34 Total graduate credit hours required (minimum)

Other curricular options

Students who already possess a content major in a discipline appropriate for secondary education may pursue a post-baccalaureate certificate.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Teaching, Master of (M.T.) with a concentration in physics education

Program accreditation

National Council for Accreditation of Teacher Education; Specialty Program Associations

Graduate program director

Leila M. Christenbury, Ed.D. Chair, Department of Teaching and Learning lchriste@vcu.edu (804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Teaching, Master of (M.T.) with concentration in biology education Teaching, Master of (M.T.) with concentration in chemistry education Teaching, Master of (M.T.) with concentration in early and elementary education Teaching, Master of (M.T.) with concentration in earth science education Teaching, Master of (M.T.) with concentration in English education Teaching, Master of (M.T.) with concentration in history/social studies education Teaching, Master of (M.T.) with concentration in mathematics education Teaching, Master of (M.T.) with concentration in teaching health and physical education

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Teaching, Master of (M.T.) with a concentration in physics education			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.T.	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

- Bachelor's degree with a major, or equivalent, in the subject the student
 wishes to teach (for secondary) or an appropriate liberal arts major (for early/
 elementary) (Students in the five-year extended program must be pursuing an
 appropriate bachelor's degree.)
- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Satisfactory scores on the GRE or MAT

Additionally, there are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the Student Services Center section on the School of Education website for current testing requirements.

Admission to clinical experiences in schools requires a background check and fingerprinting.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the

University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Teaching curricula are designed to incorporate eligibility for initial teaching licensure in Virginia in early and elementary, secondary education (biology, chemistry, earth science, English, history, history and social studies, mathematics, physics) or health and physical education.

The approved curricula include undergraduate qualifying courses as well. Individuals pursuing the extended program are awarded undergraduate and graduate degrees simultaneously; baccalaureate degree recipients who meet the admission criteria also may pursue the Master of Teaching degree program, including the qualifying courses. The combined baccalaureate and Master of Teaching program requires a minimum of 153-154 hours, at least 33 of which must be at the graduate level.

Secondary education

The Master of Teaching program includes curricula that lead to endorsement in one of the following disciplines: biology, chemistry, drama, earth science, English, history/social studies, mathematics or physics.

In order to enroll in the program, students must apply and be accepted to both the Extended Teacher Preparation Program and the Graduate School. Admission information for the Extended Teacher Preparation Program is available in the School of Education section of this bulletin.

Student teaching requirements

All students pursuing a secondary education endorsement within the Master of Teaching program will student teach in the spring semester. To do so, students must take and pass the Virginia Communication and Literacy Assessment and their subject-specific Praxis II exams before the fall semester of the academic year in which they will student teach.

Student learning outcomes

Science education

- 1. Demonstrate content knowledge in science: Candidates demonstrate content knowledge in science as evidenced by the Praxis II scores.
- Demonstrate conceptual content knowledge: Candidates demonstrate knowledge of the conceptual science to be taught and related fields, and that they are well-prepared in the breadth of knowledge needed to teach in their fields of licensure as evidenced by GPA in major courses.
- Can effectively plan classroom-based instruction: Candidates demonstrate the ability to plan effective classroom-based instruction and design assessments, consistent with goals of the National Science Education Standards as evidenced by the unit plan assessment.
- 4. Student teaching effectively apply knowledge, skills and dispositions: Candidates demonstrate knowledge, skills and dispositions are applied effectively in practice as evidenced by the clinical evaluation.
- 5. Demonstrate effects on student learning. Candidates demonstrate positive effects on student learning of major concepts, principles, theories, laws; the unifying concepts of science; the nature of science; the practice of inquiry (including student engagement in inquiry); analysis of issues related to science and technology; and the impact of science on themselves and their community as evidenced by the assessing student learning portion of the clinical evaluation.
- Preparation for legal, ethical and safety issues: Candidates demonstrate
 preparation in legal issues, safety and ethical treatment of living things as
 evidenced by the safety module assessment.
- Knowledge of research and investigation in science: Candidates demonstrate knowledge of research and investigation in science and understand multiple forms of scientific inquiry; can design, conduct and report research in their

- field; and can use mathematics and appropriate technology to collect, process and explain data as evidenced by the student-generated research assessment.
- 8. Knowledge of the contextual content of science: Candidates demonstrate knowledge of the contextual content of science and have a strong understanding of the socially relevant issues, social context, history, philosophy and applications of science as evidenced by the nature of science reflection assignment.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 33-34 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- Student teaching requirements: Students must successfully complete approved student teaching experience.
- Additional testing requirement: Students must pass Praxis II, where applicable, for licensure.

Curriculum requirements

Courses	Credit hours
Courses	Credit nours
Qualifying courses (taken as an undergraduate)	
EDUS 301 Human Development and Learning	3
Major courses (as undergraduate science majors) including	
mechanics, electricity and magnetism, optics, two general	
biology, two general chemistry and one earth science	
Admission to teacher preparation is a prerequisite for the	
following courses	
TEDU 310 Practicum (secondary; must be taken concurrently with TEDU 537)	1-3
TEDU 537 Secondary School Curriculum	3
TEDU 310 Practicum (science; must be taken concurrently with TEDU 540)	1-3
TEDU 540 Teaching Middle and High School Sciences (fall only)	3
Required courses	
EDUS 617/PSYC 657 Advanced Educational Psychology for Secondary Teachers	3
EDUS 673 Seminar on Educational Issues, Ethics and Policy	3
TEDU 562 Reading Instruction in the Content Areas	3
TEDU 588 Classroom Management	3
Clinical experience (spring only)	
TEDU 672 Internship	1-6
TEDU 674 Internship II	1-6
TEDU 681 Investigation and Trends in Teaching (must be taken concurrently with TEDU 672 and TEDU 674)	1 or 3
Total graduate credit hours required (minimum)	33-34

Other curricular options

Students who already possess a content major in a discipline appropriate for secondary education may pursue a post-baccalaureate certificate.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a

formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Teaching, Master of (M.T.) with a concentration in teaching health and physical education

Program accreditation

National Council for Accreditation of Teacher Education; Specialty Program Associations

Graduate program director

Leila M. Christenbury, Ed.D.Chair, Department of Teaching and Learning

lchriste@vcu.edu

(804) 828-1305

Program website: soe.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Teaching, Master of (M.T.) with concentration in biology education

Teaching, Master of (M.T.) with concentration in chemistry education

Teaching, Master of (M.T.) with concentration in early and elementary education

Teaching, Master of (M.T.) with concentration in earth science education

Teaching, Master of (M.T.) with concentration in English education

Teaching, Master of (M.T.) with concentration in history/social studies education

Teaching, Master of (M.T.) with concentration in mathematics education

Teaching, Master of (M.T.) with concentration in physics education

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Teaching, Master of (M.T.) with a concentration in teaching health and physical education			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.T.	Fall	Mar 15	GRE or MAT
	Spring	Nov 1	
	Summer	Mar 15	

In addition to the general admission requirements of the VCU Graduate School, the following requirements represent the minimum acceptable standards for admission:

 Bachelor's degree with a major, or equivalent, in the subject the student wishes to teach (for secondary) or an appropriate liberal arts major (for early/ elementary) (Students in the five-year extended program must be pursuing an appropriate bachelor's degree.)

- Three letters of recommendation addressing the student's potential for graduate study in education
- 3. Student's written statement concerning career interests
- 4. Transcripts of all previous college work
- 5. Satisfactory scores on the GRE or MAT

Additionally, there are several tests that students must pass for admission to teacher preparation, admission to student teaching and licensure in Virginia. Students should consult the <u>Student Services Center</u> section on the School of Education website for current testing requirements.

Admission to clinical experiences in schools requires a background check and fingerprinting.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Teaching curricula are designed to incorporate eligibility for initial teaching licensure in Virginia in early and elementary, secondary education (biology, chemistry, earth science, English, history, history and social studies, mathematics, physics) or health and physical education.

The approved curricula include undergraduate qualifying courses as well. Individuals pursuing the extended program are awarded undergraduate and graduate degrees simultaneously, baccalaureate degree recipients who meet the admission criteria also may pursue the Master of Teaching degree program, including the qualifying courses. The combined baccalaureate and Master of Teaching program requires a minimum of 153-154 hours, at least 33 of which must be at the graduate level.

Health and physical education

The Master of Teaching program with a concentration in teaching health and physical education provides advanced course work in the application of health and movement science principles to health and physical education pedagogy. Students seeking an M.T. with the teaching health and physical education concentration are required to complete the Bachelor of Science in Health, Physical Education and Exercise Science. Students with an undergraduate degree in health and physical education or related degrees are encouraged to meet with an adviser prior to applying to graduate school.

Student teaching requirements

All students pursuing a secondary education endorsement within the Master of Teaching program will student teach in the spring semester. To do so, students must take and pass the Virginia Communication and Literacy Assessment and their subject-specific Praxis II exams before the fall semester of the academic year in which they will student teach.

Student learning outcomes

Health and physical education

- Candidates demonstrate content knowledge in health and physical education: Candidates demonstrate content knowledge in health and physical education as evidenced by Praxis II scores and the undergraduate transcript analysis.
- Candidates demonstrate ability to plan instruction: Candidates demonstrate that they can effectively plan classroom-based instructions evidenced by the lesson plan assessment, lesson plan portion of the portfolio and the clinical evaluation continuum.
- Measure candidate performance in internship: Candidates demonstrate that knowledge, skills and dispositions are applied effectively in practice as evidenced by the clinical evaluation continuum.
- 4. Assess candidate effect on student learning: Candidates demonstrate effect on student learning as evidenced by success on the lesson plan portion of the portfolio.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses.

- Credit hour requirements: Students are required to complete a minimum of 33-34 credit hours depending on concentration.
- Grade requirements: Receipt of a grade of C or below in two courses constitutes automatic dismissal from the program. Courses with a grade below C cannot be used to satisfy degree requirements.
- 3. Student teaching requirements: Students must successfully complete approved student teaching experience.
- Additional testing requirement: Students must pass Praxis II, where applicable, for licensure.

Curriculum requirements

Health and physical education

Courses

The undergraduate program requires a minimum of 120 credit hours. To view undergraduate requirements, please see the program page for B.S. in Health, Physical Education and Exercise Science with a concentration in exercise science.

EDUS 607/PSYC 607 Advanced Educational Psychology for	3
Elementary Teachers	
EDUS 673 Seminar on Educational Issues Ethics and Policy	3
HEMS 522 Teaching Elementary Health and Physical Education	3
HEMS 523 Teaching Health Education	3
HEMS 524 Teaching Physical Education	3
SEDP 505 Theory and Practice of Educating Individuals with	3
Special Needs	
TEDU 562 Reading Instruction in the Content Areas	3
TEDU 672 Internship	4
TEDU 674 Internship II	5
TEDU 681 Investigations and Trends in Teaching	3
Total graduate credit hours required (minimum)	33

Other curricular options

Students who already possess a content major in a discipline appropriate for secondary education may pursue a post-baccalaureate certificate.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Credit hours

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements





2014-15 Graduate and Professional Programs Bulletin

School of Engineering

Through teaching and research, the VCU School of Engineering creates knowledge and transforms ideas in engineering and life sciences into technologies that enhance regional and global prosperity. The school prepares its students for leadership and entrepreneurship through collaborative and interdisciplinary partnerships.

Founded in 1995 and graduating its first class in May 2000, the School of Engineering is the result of collaboration rare in the history of higher education in Virginia. Virginia Commonwealth University has, with the support of Virginia Polytechnic Institute and State University, created a school that brings innovative engineering and computer science education to central Virginia. Building reciprocal relationships with business and industry in the greater Richmond area, contributing to the region's manufacturing enterprises and aggressively developing an international orientation, the school has developed programs of research and study that are sensitive to the unique demands of its time and culture.

In 1998, the undergraduate degree program in biomedical engineering was added to the original engineering disciplines of chemical, electrical and mechanical engineering, which were established in 1996. The long-standing and accredited degree program of computer science was assimilated into the School of Engineering beginning with the fall 2001 semester. In 2004-05, the chemical engineering department added an emphasis in life sciences and changed its name to the Department of Chemical and Life Science Engineering.

Students are offered an integrated and multidisciplinary curriculum in biomedical, chemical and life science, computer, electrical, or mechanical engineering, or computer science. Supported by the internationally recognized strengths of MCV Hospitals and the cutting-edge developments being generated by the Virginia BioTechnology Research Park, the School of Engineering at VCU has innovative curricula that emphasize creativity and imagination. By encouraging their interaction with practicing professionals, students are continually aware of the real-world application of their research and their studies.

Serving the best and the brightest students and supporting VCU's dedication to diversity by opening doors of opportunity to underrepresented populations in the engineering and computer science professions, the school continually strives to enrich the technological and intellectual climate of the metropolitan area.

Discovering new knowledge is the goal of the best of the nation's schools. The School of Engineering at VCU celebrates not only the discovery of knowledge, but also the creative integration and application of that knowledge.

Administration

601 West Main Street P.O. Box 843068 Richmond, Virginia 23284-3068 (804) 828-0190 or (804) 828-3925 Fax (804) 828-9866 or (804) 828-4269 www.egr.vcu.edu

Barbara D. Boyan

Dean

Afroditi V. Filippas

Interim Associate Dean for Undergraduate Studies

Accreditation

The Accreditation Board for Engineering and Technology is the premier organization in the U.S. that provides accreditation to engineering and computer science programs. Individual programs (i.e., mechanical engineering) are accredited at the bachelor's level.

The Engineering Accreditation Commission of ABET has accredited the Biomedical, Chemical and Life Science, Electrical and Computer, and Mechanical engineering programs at the VCU School of Engineering.

The Computer Accreditation Commission of ABET has provided accreditation to the Computer Science Program for many years.

Degree programs

The School of Engineering offers the following degree programs:

Bachelor of Science

Biomedical Engineering Chemical and Life Science Engineering Computer Engineering Computer Science Electrical Engineering

Mechanical Engineering

Students also may be admitted under "Undeclared Engineering" for entrance to the School of Engineering. A field of study can be determined after the first semester.

Master of Science

Biomedical Engineering

Computer Science

Engineering – with tracks in:

- · Chemical and Life Science Engineering
- · Electrical and Computer Engineering
- · Engineering

Mechanical and Nuclear Engineering

Doctor of Philosophy

Biomedical Engineering

Engineering – with tracks in:

- · Chemical and Life Science Engineering
- Computer Science
- · Electrical and Computer Engineering
- · Engineering
- Mechanical Engineering

Joint degree

 $\mbox{M.D./Ph.D.}$ in Biomedical Engineering in participation with the School of Medicine

Interdisciplinary and cooperative studies degree

M.S. degree through the Commonwealth Graduate Engineering Program

Post-baccalaureate certificate

Computer Science

Engineering courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow these links to engineering (ENGR) courses or the (ENGZ) laboratories.

Commonwealth Graduate Engineering Program

The Commonwealth Graduate Engineering Program is a collaborative effort of the University of Virginia, Virginia Commonwealth University, Virginia Polytechnic Institute and State University, Old Dominion University, and George Mason University. The University of Mary Washington participates as a funded receive site.

See the School of Engineering Graduate Programs section of this bulletin for information on VCU's graduate programs in engineering.

Administration

Rosalyn S. Hobson

Associate Dean for Graduate Studies

The VCU Commonwealth Graduate Engineering Program (CGEP) director works closely with the other CGEP directors, the VCU Dean of School of Engineering, and local businesses and industries.

Program description

Students who have baccalaureate degrees in engineering or strong backgrounds in the sciences may work toward a master's degree in engineering on the Monroe Park Campus of VCU. Graduate engineering courses are available from the CGEP member universities via interactive television, the Web and two-way audio/video teleconferencing. In addition to the required engineering courses, elective courses are available in applied mathematics, mathematical statistics, chemistry, operations research, and physics in classes at VCU. The following academic programs are available through CGEP:

- · Chemical Engineering
- · Civil and Environmental Engineering
- Computer Science
- · Electrical and Computer Engineering
- Engineering Management
- · Industrial and Systems Engineering
- Manufacturing and Design Engineering
- · Materials Sciences and Engineering
- · Mechanical and Aerospace Engineering
- · Modeling and Simulation

Degree-seeking students

Students enrolling in the program should apply for admission in a given academic area of study and may select courses from any of the participating institutions, consistent with selected degree requirements.

Nondegree-seeking students

Qualified individuals may enroll in a particular course without pursuing a formal degree program of study. Admission will be based on the individual's academic preparation and the availability of space.

Admission requirements

Students should apply for admission to the CGEP University offering the desired degree program. Applicants should have a "B" average, but a successful professional experience may strengthen admission credentials. Three recommendations from persons who are qualified to give information concerning the applicants' probable success in the program and the completion of the Graduate Record Examination (GRE) also are required.

Graduate information

Registration for graduate study

In the biomedical engineering program, all new students begin their course of study in the fall semester (August). Spring semester admissions require the recommendation of the graduate program director, approval of the chair and the assistant dean for graduate affairs. Students may begin a course of study in either the fall or spring semesters for the engineering and computer science graduate programs; however, a start in the fall semester is preferred. For the CGEP, students may begin a course of study in either the fall or spring semester.

Engineering, Doctor of Philosophy (Ph.D.)

Graduate program director

Leena Joseph Director of graduate studies, School of Engineering josephl@vcu.edu (804) 828-1087

Additional contact

Barbara D. Boyan, Ph.D. Professor and dean, School of Engineering bdboyan@vcu.edu (804) 828-3925

Program website: egr.vcu.edu/future-students/graduate-programs

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Engineering, Doctor of Philosophy (Ph.D.) with a concentration in chemical and life science engineering

Engineering, Doctor of Philosophy (Ph.D.) with a concentration in computer science

Engineering, Doctor of Philosophy (Ph.D.) with a concentration in electrical and computer engineering

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Engineering, Doctor of Philosophy (Ph.D.)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall	Jun 1 (Feb 15 for	GRE – General
		financial assistance)	International students require TOEFL
		Nov 15	
	Spring		

Special requirements:

Students may begin a course of study in either the fall or spring semesters for the engineering programs, although a start in the fall semester is preferred.

In addition to the general admission requirements of the VCU Graduate School and the School of Engineering, applicants to the doctoral degree in engineering must have a B.S. degree in engineering or a closely related discipline.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The goal of the Ph.D. in Engineering degree program is to provide graduate students with learning opportunities for acquiring a broad foundation of engineering knowledge; an in-depth original research experience at the frontiers of engineering; and skills for lifelong learning and professional development. Graduates of this program will pursue careers in research and development or academia

- Advanced research skills: To produce graduates who possess the necessary
 advanced analytical, technical and research skills in engineering and the
 sciences in order to respond directly to the higher goal of fulfilling the needs
 of industry, academe and research laboratories for effective, productive
 engineers, professors and researchers
- Communication: To produce graduates who possess a facility with both written and oral communications so that engineers, researchers and professors will be able to interact and share ideas with others in the work environment, and at a higher level, be capable of creative self-expression, conveying knowledge and leadership

3. Advanced problem-solving: To produce graduates who demonstrate creativity and innovation in solving technological problems stemming from the realization that new knowledge and new solutions to existing problems are necessary to meet the needs of our changing society and to advance the quality of human life

Student learning outcomes

Graduates of the Ph.D. in Engineering degree program will be able to demonstrate:

- The ability to apply advanced knowledge of mathematics, science or engineering
- 2. The ability to communicate effectively
- 3. The ability to identify, formulate and solve engineering problems
- 4. The ability to identify pertinent research problems, to formulate and execute a research plan, to generate and analyze research results, and to communicate those results through oral presentations and written publications. Graduates will be able to creatively solve the research problems posed.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students entering the doctoral program with a B.S. degree, but not the M.S., will require a minimum of 60 post-baccalaureate credit hours beyond the bachelor's degree, including research credit hours (30 for M.S. level and an additional 30 for Ph.D. level).

Students holding the master's degree must complete a minimum of six credit hours in concentration course work, three credit hours in elective course work and 21 credit hours in dissertation research. The student's adviser must approve all course work. Ph.D. students must take a minimum of 30 credit hours (including research credit hours) beyond the master's degree. At least half of the credit hours required in the student's program must be those designated as exclusively for graduate students, that is, those at the 600 level or above.

A minimum of three years of study, including research, is necessary to complete all requirements for the Ph.D. A period of residence of at least three consecutive semesters is required. Residency is defined as registration for at least nine credit hours per semester. Students have a maximum of eight calendar years, beginning at the time of first registration to complete the Ph.D. degree program.

Comprehensive examinations

In order to advance to doctoral candidacy, the student must pass both written and oral comprehensive examinations. The written examination focuses on the subject matter deemed critical as a foundation in the program. The examination is largely based on material covered in required course work and its application to theoretical and practical problems. The oral examination, which follows successful completion of the written examination(s), is administered to assess the ability of the student to integrate information and display an appropriate mastery of problem-solving capabilities. Graduate students may not take the comprehensive exam if their overall GPA is less than 3.0. Students must also have a minimum GPA of 3.0 for courses within the program in order to take the comprehensive exam. For further details, see the graduate program director or the program chair.

Admission to degree candidacy

Before admission to doctoral candidacy, students must have: (1) completed required course work, (2) successfully completed the comprehensive examinations and (3) fulfilled all additional departmental requirements. A student may seek admission to candidacy for the Doctor of Philosophy degree without first completing the research and thesis portion of the Master of Science degree.

Dissertation research

The student must conduct a substantial original investigation under the supervision of the permanent adviser and prepare a dissertation reporting the results of this research and analyzing its significance in relation to existing scientific knowledge.

When the dissertation has been completed, copies in accepted form and style are submitted to the members of the advisory committee. The committee members decide upon the acceptability of the candidate's dissertation. A favorable unanimous vote is required to approve the dissertation and all examiners are required to vote.

If the advisory committee accepts the dissertation for defense, the candidate appears before them for a final oral examination. This examination is open to all

members of the faculty. The final oral examination will be limited to the subject of the candidate's dissertation and related matters. A favorable vote of the candidate's advisory committee and no more than one negative vote shall be required for passing the final oral examination. All committee members must vote. There shall be an announcement of the candidate's name, department and title of dissertation, together with the day, place and hour of the final oral examination at least 10 working days in advance.

There are three components of each Ph.D. in Engineering curriculum:

- Concentration-specific component: This component allows the student to pursue a series of courses that focus on a specific field of engineering and serve as the student's primary engineering discipline.
- Electives component: This component allows the student to take courses in either engineering or science with approval of the student's adviser.
- Directed research component: This component emphasizes research directed toward completion of degree requirements under the direction of an adviser and advisory committee.

Curriculum requirements

M.S. to Ph.D. in Engineering

Courses	Credit hours
Concentration-specific component: ENGR course work	6
Electives: engineering or science course work	3
Directed research: ENGR 697 Directed Research	21
Total graduate credit hours required (minimum)	30
B.S. to Ph.D. in Engineering	
Courses	Credit hours
Concentration-specific component: ENGR course work	18
Electives: engineering or science course work	15
Directed research: ENGR 697 Directed Research	27
Total graduate credit hours required (minimum)	60

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student handbook is available on the School of Engineering website.

Engineering, Doctor of Philosophy (Ph.D.) with a concentration in chemical and life science engineering

Graduate program director

Vamsi K. Yadavalli, Ph.D. Associate professor vyadavalli@vcu.edu (804) 828-0587

Additional contact

B. Frank Gupton, Ph.D.

Research professor and interim chair, Department of Chemical and Life Science Engineering

bfgupton@vcu.edu (804) 828-4799

Program website: chemical.egr.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Engineering, Master of Science (M.S.) with a concentration in chemical and life science engineering

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Engineering, Doctor of Philosophy (Ph.D.) with a concentration in chemical and life science engineering			
Degree:	Semester(s) of	Deadline	Test requirements:
	entry:	dates:	GRE – General
Ph.D.	Fall (preferred)	Jun 1 (Mar 15 for	
		financial assistance)	International students require TOEFL (a
	Spring	Nov 15	minimum score of 100 in the TOEFL exam is required to be considered for financial assistance)

In addition to the general admission requirements of the VCU Graduate School and the School of Engineering, applicants to the chemical and life science engineering concentration must have a B.S. degree in chemical engineering or a closely related discipline.

Acceptance of an applicant is based upon the recommendation of the admissions committee with approval of the program chair and the School of Engineering's associate dean for graduate studies.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission

The mission of the Ph.D. in Engineering degree program is to provide graduate students with learning opportunities for acquiring a broad foundation of engineering knowledge, an in-depth original research experience at the frontiers of engineering, and skills for lifelong learning and professional development. Graduates of this program will pursue careers in research and development or academia

- Advanced research skills: To produce graduates who possess the necessary advanced analytical, technical and research skills in engineering and the sciences – responds directly to the higher goal of fulfilling the needs of industry, academe and research laboratories for effective, productive engineers, professors and researchers
- 2. Communication: To produce graduates who possess a facility with both written and oral communications emanates from the requirement that engineers, researchers and professors must be able to interact and share ideas with others in the work environment, and at a higher level, be capable of creative self-expression, conveying knowledge and leadership
- 3. Advanced problem-solving: To produce graduates who demonstrate creativity and innovation in solving technological problems – stems from the realization that new knowledge and new solutions to existing problems are necessary to meet the needs of our changing society and to advance the quality of human life

Student learning outcomes

- Apply advanced knowledge of mathematics, science or engineering: Graduates will demonstrate an ability to apply advanced knowledge of mathematics, science or engineering.
- Communicate effectively: Graduates will demonstrate an ability to communicate effectively.
- Identify, formulate and solve engineering problems: Graduates will demonstrate an ability to identify, formulate and solve engineering problems.
- 4. Demonstrate abilities in research: Graduates will demonstrate the ability to identify pertinent research problems, to formulate and execute a research plan, to generate and analyze research results, and to communicate those results through oral presentations and written publications. Graduates will be able to creatively solve the research problems posed.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students must meet the following requirements.

A minimum of 60 credit hours beyond the bachelor's degree, including research credit hours, is required for the Ph.D. in Engineering. Students holding the master's degree must complete a minimum of six credit hours in concentration course work and 18 credit hours in dissertation research. The student's adviser must approve all course work. Ph.D. students must take a minimum of 30 credit hours (including research) beyond the master's degree. No elective courses may be used for both M.S. and Ph.D. degrees. At least half of the credit hours required in the student's program must be those designated as exclusively for graduate students, that is, at the 600 level or above.

A minimum of three years of study, including research, is necessary to complete all requirements for the Ph.D. A period of residence of at least three consecutive semesters is required. Residency is defined as registration for at least nine credits per semester. A time limit of eight calendar years, beginning at the time of first registration, is placed on work to be credited toward the Ph.D.

Comprehensive examinations

In order to advance to doctoral candidacy, the student must pass both written and oral comprehensive examinations. The written examination focuses on the subject matter deemed critical as a foundation in the program. The examination is largely based on material covered in required course work and its application to

theoretical and practical problems. The oral examination, which follows successful completion of the written examination(s), is administered to assess the ability of the student to integrate information and display an appropriate mastery of problem-solving capabilities. Graduate students may not take the comprehensive exam if their overall GPA is less than 3.0. Students must also have a minimum GPA of 3.0 for courses within the program in order to take the comprehensive exam. For further details, see the graduate program director or the program chair.

Admission to candidacy

Before admission to doctoral candidacy, students must have: (1) completed required course work, (2) successfully completed the comprehensive examinations and (3) fulfilled all additional departmental requirements. A student may seek admission to candidacy for the Doctor of Philosophy degree without first completing the research and thesis portion of the Master of Science degree.

Dissertation research

The student must conduct a substantial original investigation under the supervision of the permanent adviser and prepare a dissertation reporting the results of this research and analyzing its significance in relation to existing scientific knowledge.

When the dissertation has been completed, copies in accepted form and style are submitted to the members of the advisory committee. The committee members decide upon the acceptability of the candidate's dissertation. A favorable unanimous vote is required to approve the dissertation and all examiners are required to vote.

If the advisory committee accepts the dissertation for defense, the candidate appears before them for a final oral examination. This examination is open to all members of the faculty. The final oral examination will be limited to the subject of the candidate's dissertation and related matters. A favorable vote of the candidate's advisory committee and no more than one negative vote shall be required for passing the final oral examination. All committee members must vote. There shall be an announcement of the candidate's name, department and title of dissertation, together with the day, place and hour of the final oral examination at least 10 working days in advance.

Curriculum requirements

M.S. to Ph.D. curriculum

Courses	Credit
Courses	hours

Concentration component: This component allows the student to pursue a series of courses that focus on a specific field of engineering and serve as the student's primary engineering discipline.

Core courses	9
CLSE 654 Equilibrium Analysis in Chemical and Biological Systems	3
CLSE 655 Nonequilibrium Analysis in Chemical and Life Science Engineering	3
CLSE 656 Advanced Chemical Reaction Engineering	3
Directed research	21
This component emphasizes research directed toward completion of degree requirements under the direction of an adviser and advisory committee.	

CLSE 690 Research Seminar in Chemical and Life Science Engineering 3 CLSE 697 Directed Research in Chemical and Life Science Engineering 3

Total graduate credit hours required (minimum) 30

Students entering the doctoral program with a B.S. degree, but not the M.S., will require a minimum of 60 post-baccalaureate credit hours (30 for M.S. level and an additional 30 for Ph.D. level).

B.S. to Ph.D. curriculum

Courses	Credit hours	
Concentration component – CLSE course work	18	

This component allows the student to pursue a series of courses that focus on a specific field of engineering and serve as the student's primary engineering discipline.

Required

CLSE 654 Equilibrium Analysis in Chemical and Biological Systems	3
CLSE 655 Nonequilibrium Analysis in Chemical and Life Science	3
Engineering	

CLSE 656 Advanced Chemical Reaction Engineering

Additional CLSE course work at the 500 level or higher

Option electives – engineering or science course work

This component allows the student to take courses in either engineering or science with approval of the student's adviser (e.g. CLSE, ENGR, CHEM courses. 500 level or higher).

Directed research

2.7

15

This component emphasizes research directed toward completion of degree requirements under the direction of an adviser and advisory committee.

CLSE 690 Research Seminar in Chemical and Life Science Engineering CLSE 697 Directed Research in Chemical and Life Science Engineering

Total graduate credit hours required (minimum)

60

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student handbook is available on the School of Engineering website.

Engineering, Doctor of Philosophy (Ph.D.) with a concentration in computer science

Graduate program director

Tom J. Arodz, Ph.D.

Assistant professor tarodz@vcu.edu (804) 827-3989

Additional contact

Krzysztof J. Cios, Ph.D. Professor and chair, Department of Computer Science kcios@vcu.edu

(804) 828-9671

Program website: computer-science.egr.vcu.edu/graduate

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Computer and Information Systems Security, Master of Science (M.S.)

Computer Science, Master of Science (M.S.)

Computer Science, Master of Science (M.S.), accelerated Bachelor of Science in Computer Science

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Engineering, Doctor of Philosophy (Ph.D.) with a concentration in computer science			
Degree:	Semester(s) of	Deadline	Test requirements:
	entry:	dates:	GRE - General
Ph.D.	Fall	Jun 1 (Feb 15 for	
		financial assistance)	International students
	Spring	Nov 15	require TOEFL

Special requirements:

Acceptance of an applicant is based upon the recommendation of the admissions committee with approval of the program chair and the associate dean for graduate studies.

Students may begin a course of study in either the fall or spring semesters for the engineering graduate programs, although a start in the fall semester is preferred.

In addition to the general admission requirements of the VCU Graduate School, and the School of Engineering, applicants must meet the following requirements:

Applicants to the Ph.D. in Engineering with a concentration in computer science must have a B.S. and master's degree in engineering, computer science or a closely related discipline.

Students with an M.S. degree in a field closely related to computer science, such as mathematics, physics, engineering or bioinformatics, can be accepted directly into the Ph.D. program. However, only outstanding students (preferably with a B.S. degree in computer science) can be admitted directly into the Ph.D. program with just the baccalaureate degree.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

> General academic regulations for all graduate students in all graduate programs at VCU



Program mission

The mission of the Ph.D. in Engineering degree program is to provide graduate students with learning opportunities for acquiring a broad foundation of engineering knowledge, an in-depth original research experience at the frontiers of engineering, and skills for lifelong learning and professional development. Graduates of this program will pursue careers in research and development or

- 1. Advanced research skills: To produce graduates who possess the necessary advanced analytical, technical and research skills in engineering and the sciences – responds directly to the higher goal of fulfilling the needs of industry, academe and research laboratories for effective, productive engineers, professors and researchers
- 2. Communication: To produce graduates who possess a facility with both written and oral communications – emanates from the requirement that engineers, researchers and professors must be able to interact and share ideas with others in the work environment, and at a higher level, be capable of creative self-expression, conveying knowledge and leadership
- Advanced problem-solving: To produce graduates who demonstrate creativity and innovation in solving technological problems - stems from the realization that new knowledge and new solutions to existing problems are necessary to meet the needs of our changing society and to advance the quality of human life

Student learning outcomes

- 1. Apply advanced knowledge of mathematics, science or engineering: Graduates will demonstrate an ability to apply advanced knowledge of mathematics, science or engineering.
- Communicate effectively: Graduates will demonstrate an ability to communicate effectively.
- Identify, formulate and solve engineering problems: Graduates will demonstrate an ability to identify, formulate and solve engineering problems.
- Demonstrate abilities in research: Graduates will demonstrate the ability to identify pertinent research problems, to formulate and execute a research plan, to generate and analyze research results, and to communicate those results through oral presentations and written publications. Graduates will be able to creatively solve the research problems posed.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students must meet the following requirements.

A minimum of 60 credit hours beyond the bachelor's degree, including research credit hours, is required for the Ph.D. in Engineering. Students holding the master's degree must complete a minimum of six credit hours in concentration course work and 18 credit hours in dissertation research. The student's adviser must approve all course work. Ph.D. students must take a minimum of 30 credit hours (including research) beyond the master's degree. No elective courses may be used for both M.S. and Ph.D. degrees. At least half of the credit hours required in the student's program must be those designated as exclusively for graduate students, that is, at the 600 level or above.

A minimum of three years of study, including research, is necessary to complete all requirements for the Ph.D. A period of residence of at least three consecutive semesters is required. Residency is defined as registration for at least nine credits per semester. A time limit of eight calendar years, beginning at the time of first registration, is placed on work to be credited toward the Ph.D.

A student may choose to pursue a Ph.D. under the guidance of a computer science graduate faculty member. Interdisciplinary programs of study that involve computer science and another discipline are encouraged; however, a core of computer science courses is required. Courses not labeled CMSC must show relevance to the student's program of study and must be submitted for approval by the computer science graduate committee through the student's adviser.

Comprehensive examinations

In order to advance to doctoral candidacy, the student must pass both written and oral comprehensive examinations. The written examination focuses on the subject matter deemed critical as a foundation in the program. The examination is largely based on material covered in required course work and its application to

theoretical and practical problems. The oral examination, which follows successful completion of the written examination(s), is administered to assess the ability of the student to integrate information and display an appropriate mastery of problem-solving capabilities. Graduate students may not take the comprehensive exam if their overall GPA is less than 3.0. Students must also have a minimum GPA of 3.0 for courses within the program in order to take the comprehensive exam. For further details, see the graduate program director or the program chair.

Admission to candidacy

Before admission to doctoral candidacy, students must have: (1) completed required course work, (2) successfully completed the comprehensive examinations and (3) fulfilled all additional departmental requirements. A student may seek admission to candidacy for the Doctor of Philosophy degree without first completing the research and thesis portion of the Master of Science degree.

Dissertation research

The student must conduct a substantial original investigation under the supervision of the permanent adviser and prepare a dissertation reporting the results of this research and analyzing its significance in relation to existing scientific knowledge.

When the dissertation has been completed, copies in accepted form and style are submitted to the members of the advisory committee. The committee members decide upon the acceptability of the candidate's dissertation. A favorable unanimous vote is required to approve the dissertation and all examiners are required to vote.

If the advisory committee accepts the dissertation for defense, the candidate appears before them for a final oral examination. This examination is open to all members of the faculty. The final oral examination will be limited to the subject of the candidate's dissertation and related matters. A favorable vote of the candidate's advisory committee and no more than one negative vote shall be required for passing the final oral examination. All committee members must vote. There shall be an announcement of the candidate's name, department and title of dissertation, together with the day, place and hour of the final oral examination at least 10 working days in advance.

Students will have to satisfy the following requirements:

- Take a minimum of 12 credit hours of didactic course work at the graduate level and 18 credit hours of directed research for a minimum of 30 credit hours including a minimum of four courses that should satisfy the following:
 - a. At least two courses at the 600 level or greater
 - At least one course from each of the two foundation areas: theory and systems
- Take and pass a written comprehensive exam (maximum of two attempts allowed)
 - The written comprehensive examination will cover knowledge in three areas and, in order to pass, students must score a minimum of 75 percent in each area.
 - The exam must include material based on CMSC 501 from the theory area and on at least one course from the systems area.
 - ii. The third area will cover the student's specialization based on courses to be decided by the dissertation adviser.
 - b. Students are allowed to take the comprehensives based on courses they may not have taken at VCU; however, they have to satisfy the course requirements as mentioned above.
 - c. Students can contact the lead professor for any area and obtain a list of topics that will be covered in the exam.
 - d. The exam will be conducted a minimum of once a year and will be organized by the graduate director, with prior approval of the exam questions by the graduate committee.
 - e. A student who fails one area of the required three comprehensive exam
 areas must retake the exam in the failed area. The department will
 organize and schedule a special comprehensive exam for such students.
 A student who fails two or more exam areas must retake the entire
 comprehensive exam at the regularly scheduled comprehensive exam in
 the following year.
- Write and defend a dissertation proposal (oral comprehensive exam) on an original research topic.
- 4. Write and publicly defend the Ph.D. dissertation.

- a. Since the Ph.D. is awarded for completion of work on an original research problem, peer-reviewed evidence of the quality of this work, in terms of at least one accepted journal paper or published high-quality conference paper (publications should be in a student's research area), must be approved by the dissertation committee and the graduate committee before the final dissertation defense can be scheduled.
- b. Specific publication requirements are available at the computer science department website as well as in the School of Engineering graduate handbook.

For students with a B.S. degree

Students admitted into the Ph.D. program with a B.S. degree must satisfy the following requirements:

- 1. Take a minimum of 60 credit hours of course work, including:
 - a. A minimum of 30 didactic credit hours, including
 - At least two courses from each of the three foundation areas;
 CMSC 501 must be one of these courses.
 - ii. At least 15 credit hours at the 600 level or greater
 - b. In addition, a student admitted to this program may need to take other undergraduate computer science courses in order to prepare for the required graduate-level courses. The choice of these courses will be left to the discretion of the student's adviser.
 - c. A minimum of 18 credit hours of directed research is required.
- 2. Satisfy the comprehensive examination requirements as articulated above.

For students without an M.S. in Computer Science

- Students admitted into the Ph.D. program without an M.S. in Computer Science must satisfy the following:
 - a. Take a minimum of 18 credit hours of course work at the graduate level and 18 credit hours of directed research for a minimum of 36 credit hours including:
 - A minimum of two courses from each of the foundation areas: theory and systems; CMSC 501 must be one of these courses
 - ii. At least nine credits at the 600 level or greater
 - iii. In addition, a student admitted to this program may need to take other undergraduate computer science courses in order to prepare for the required graduate-level courses. The choice of these courses will be left to the discretion of the student's adviser.
 - Satisfy the comprehensive examination requirements as articulated above.

Curriculum requirements

B.S. to Ph.D. curriculum

Courses hours

Credit

Concentration component: This component allows the student to pursue a series of courses that focus on a specific field of engineering and serve as the student's primary engineering discipline.

Foundational area: theory	6
CMSC 501 Advanced Algorithms (required)	3
Choose at least one of the following:	
CMSC 526 Theory of Programming Languages	3
CMSC 620/CISS 624 Applied Cryptography	3
CMSC 621 Theory of Computation	3
Foundational area: systems (choose at least two of the following)	6
CMSC 502 Parallel Algorithms	3
CMSC 506/EGRE 526 Computer Networks and Communications	3
CMSC 608 Advanced Database	3
CMSC/CISS 618 Database and Application Security	3

30

CMSC 622 Network and Operating Systems Security Foundational area: applied computer science (choose at least two of 6 the following) CMSC/CISS 609 Advanced Computational Intelligence 3 CMSC 630 Applied Signal and Image Analysis 3 CMSC 635 Knowledge Discovery and Data Mining 3 CMSC 678 Statistical Learning and Fuzzy Logic Algorithms 3 **Optional electives component:** This component allows the student to take courses in either engineering or science with approval of the student's adviser. Additional CMSC course work 12 Note: At least 15 credit hours of all CMSC courses must be at the 600 level or greater. **Directed research component:** This component emphasizes research directed toward completion of degree requirements under the direction of an adviser and advisory committee. Research 18 CMSC 692 Independent Study or CMSC 697 Directed Research 60 Total graduate credit hours required (minimum)

Concentration component: This component allows the student to pursue a series of courses that focus on a specific field of engineering and serve as the student's primary engineering discipline.

Foundational area: theory (choose at least one of the following)

Courses

M.S. to Ph.D. curriculum

roundational area: theory (choose at least one of the following)	3
CMSC 501 Advanced Algorithms (required)	3
CMSC 526 Theory of Programming Languages	3
CMSC 620/CISS 624 Applied Cryptography	3
CMSC 621 Theory of Computation	3
Foundational area: systems (choose at least one of the following)	3
CMSC 502 Parallel Algorithms	3
CMSC 506 Computer Networks and Communications	3
CMSC 608 Advanced Database	3
CMSC/CISS 618 Database and Application Security	3
CMSC 622 Network and Operating Systems Security	3

Optional electives component: This component allows the student to take courses in either engineering or science with approval of the student's adviser.

Additional CMSC course work or other engineering or science courses in MATH/OPER/STAT/EGRE (Non-CMSC courses require approval by Graduate Committee.)

Note: At least six credit hours of all CMSC courses must be at the 600 level or greater. An additional six credit hours is required for students with an M.S. degree in a subject other than computer science.

Directed research component: This component emphasizes research directed toward completion of degree requirements under the direction of an adviser and advisory committee.

Research 18

CMSC 697 Directed Research

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student handbook is available on the School of Engineering website.

Engineering, Doctor of Philosophy (Ph.D.) with a concentration in electrical and computer engineering

Graduate program director

Xubin He, Ph.D.

Credit

hours

Associate professor

xhe2@vcu.edu

(804) 827-7627

Additional contact

Robert H. Klenke, Ph.D.

Associate professor and interim chair, Department of Electrical and Computer Engineering

rhklenke@vcu.edu

(804) 827-7007

Program website: electrical-and-computer.egr.vcu.edu/graduate

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Engineering, Master of Science (M. S.) with a concentration in electrical and computer engineering

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Engineering, Doctor of Philosophy (Ph.D.) with a concentration in electrical and computer engineering			
Degree:	Semester(s) of	Deadline	Test requirements:
	entry:	dates:	GRE - General
Ph.D.	Fall (preferred)	Jun 1 (Feb 15 for	
	* .	financial assistance)	
			TOEFL or IELTS is
	Spring	Nov 15	required for
	, 0		international students

In addition to the general admission requirements of the VCU Graduate School, applicants to the Ph.D. in Engineering with a concentration in electrical and computer engineering must have a B.S. degree in electrical and computer engineering or a closely related discipline. Acceptance of an applicant is based upon the recommendation of the admissions committee with approval of the program chair and the associate dean for graduate studies.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission

The mission of the Ph.D. in Engineering degree program is to provide graduate students with learning opportunities for acquiring a broad foundation of engineering knowledge, an in-depth original research experience at the frontiers of engineering, and skills for lifelong learning and professional development. Graduates of this program will pursue careers in research and development or academia

- Advanced research skills: To produce graduates who possess the necessary
 advanced analytical, technical and research skills in engineering and the
 sciences responds directly to the higher goal of fulfilling the needs of
 industry, academe and research laboratories for effective, productive
 engineers, professors and researchers
- 2. Communication: To produce graduates who possess a facility with both written and oral communications emanates from the requirement that engineers, researchers and professors must be able to interact and share ideas with others in the work environment, and at a higher level, be capable of creative self-expression, conveying knowledge and leadership
- 3. Advanced problem-solving: To produce graduates who demonstrate creativity and innovation in solving technological problems – stems from the realization that new knowledge and new solutions to existing problems are necessary to meet the needs of our changing society and to advance the quality of human life

Student learning outcomes

 Apply advanced knowledge of mathematics, science or engineering: Graduates will demonstrate an ability to apply advanced knowledge of mathematics, science or engineering.

- 2. Communicate effectively: Graduates will demonstrate an ability to communicate effectively.
- 3. Identify, formulate and solve engineering problems: Graduates will demonstrate an ability to identify, formulate and solve engineering problems.
- 4. Demonstrate abilities in research: Graduates will demonstrate the ability to identify pertinent research problems, to formulate and execute a research plan, to generate and analyze research results, and to communicate those results through oral presentations and written publications. Graduates will be able to creatively solve the research problems posed.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students must meet the following requirements.

A minimum of 60 credit hours beyond the bachelor's degree, including research credit hours, is required for the Ph.D. in Engineering. Students holding the master's degree must complete a minimum of six credit hours in concentration course work and 18 credit hours in dissertation research. The student's adviser must approve all course work. Ph.D. students must take a minimum of 30 credit hours (including research) beyond the master's degree. No elective courses may be used for both M.S. and Ph.D. degrees. At least half of the credit hours required in the student's program must be those designated as exclusively for graduate students, that is, at the 600 level or above.

A minimum of three years of study, including research, is necessary to complete all requirements for the Ph.D. A period of residence of at least three consecutive semesters is required. Residency is defined as registration for at least nine credits per semester. A time limit of eight calendar years, beginning at the time of first registration, is placed on work to be credited toward the Ph.D.

Comprehensive examinations

In order to advance to doctoral candidacy, the student must pass both written and oral comprehensive examinations. The written examination focuses on the subject matter deemed critical as a foundation in the program. The examination is largely based on material covered in required course work and its application to theoretical and practical problems. The oral examination, which follows successful completion of the written examination(s), is administered to assess the ability of the student to integrate information and display an appropriate mastery of problem-solving capabilities. Graduate students may not take the comprehensive exam if their overall GPA is less than 3.0. Students must also have a minimum GPA of 3.0 for courses within the program in order to take the comprehensive exam. For further details, see the graduate program director or the program chair.

Admission to candidacy

Before admission to doctoral candidacy, students must have: (1) completed required course work, (2) successfully completed the comprehensive examinations and (3) fulfilled all additional departmental requirements. A student may seek admission to candidacy for the Doctor of Philosophy degree without first completing the research and thesis portion of the Master of Science degree.

Dissertation research

The student must conduct a substantial original investigation under the supervision of the permanent adviser and prepare a dissertation reporting the results of this research and analyzing its significance in relation to existing scientific knowledge.

When the dissertation has been completed, copies in accepted form and style are submitted to the members of the advisory committee. The committee members decide upon the acceptability of the candidate's dissertation. A favorable unanimous vote is required to approve the dissertation and all examiners are required to vote.

If the advisory committee accepts the dissertation for defense, the candidate appears before them for a final oral examination. This examination is open to all members of the faculty. The final oral examination will be limited to the subject of the candidate's dissertation and related matters. A favorable vote of the candidate's advisory committee and no more than one negative vote shall be required for passing the final oral examination. All committee members must vote. There shall be an announcement of the candidate's name, department and title of dissertation, together with the day, place and hour of the final oral examination at least 10 working days in advance.

Curriculum requirements

M.S. to Ph.D. curriculum

Courses	hour
Concentration component – EGRE course work (EGRE 500 level or	
higher, or courses approved by the advisory committee)	
This component allows the student to pursue a series of courses that focus	6
on a specific field of engineering and serve as the student's primary	
engineering discipline.	

Option electives – engineering or science course work (including EGRE, ENGR, EGRB, EGRM, EGMN, CMSC, CLSE, PHYS, MATH, OPER, STAT, CHEM, 500 level or higher, or courses approved by the advisory committee)

This component allows the student to take courses in either engineering or science with approval of the student's adviser.

Directed research

21

3

Credit

This component emphasizes research directed toward completion of degree requirements under the direction of an adviser and advisory committee.

EGRE 697 Directed Research in Electrical and Computer Engineering

Total graduate credit hours required (minimum)

30

18

15

B.S. to Ph.D. curriculum

Courses	Credit
Courses	hours

Concentration component – EGRE course work (EGRE 500 level or higher, or courses approved by the advisory committee)

This component allows the student to pursue a series of courses that focus on a specific field of engineering and serve as the student's primary engineering discipline.

Option electives – engineering or science course work (including EGRE, ENGR, EGRB, EGRM, EGMN, CMSC, CLSE, PHYS, MATH, OPER, STAT, CHEM, 500 level or higher, or courses approved by the advisory committee)

This component allows the student to take courses in either engineering or science with approval of the student's adviser.

Directed research 27

This component emphasizes research directed toward completion of degree requirements under the direction of an adviser and advisory committee.

EGRE 697 Directed Research in Electrical and Computer Engineering

Total graduate credit hours required (minimum) 60

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student handbook is available on the School of Engineering website.

Engineering, Master of Science (M.S.)

Graduate program director

Leena Joseph

Director of graduate studies, School of Engineering josephl@vcu.edu

(804) 828-1087

Additional contact

Barbara D. Boyan, Ph.D. Professor and dean, School of Engineering bdboyan@vcu.edu (804) 828-3925

Program website: egr.vcu.edu/future-students/graduate-programs

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Engineering, Master of Science (M.S.) with a concentration in chemical and life science engineering

Engineering, Master of Science (M. S.) with a concentration in electrical and computer engineering

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Engineering, N	Master of Science (M.S.)	1	
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.S.	Fall	Jun 1 (Feb 15 for	GRE - General
		financial assistance)	
			International students
		Nov 15	require TOEFL
	Spring		1

Special requirements:

Students may begin a course of study in either the fall or spring semesters for the engineering programs, although a start in the fall semester is preferred.

In addition to the general admission requirements of the VCU Graduate School and the School of Engineering, applicants to the master's degree in engineering must have a B.S. degree in engineering or a closely related discipline.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on

program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The goal of the M.S. in Engineering degree program is to provide graduate students with learning opportunities for acquiring a broad foundation of engineering knowledge including business and manufacturing aspects; an in-depth research experience at the frontiers of engineering; and skills for lifelong learning and professional development. Graduates of this program will pursue careers in business/industry and government, or will pursue doctoral degrees.

- Advanced technical skills: To produce graduates who possess the necessary
 advanced analytical and technical skills in engineering and sciences in order
 to respond directly to the higher goals of fulfilling the needs of industry for
 effective, productive engineers and of providing economic development for
 the region, state and nation
- Communication: To produce graduates who possess a facility with both written and oral communications so that engineers will be able to interact and share ideas with others in the work environment, and at a higher level, be capable of creative self-expression and leadership
- 3. Advanced problem-solving: To produce graduates who demonstrate creativity and innovation in solving technological problems stemming from the realization that new knowledge and new solutions to existing problems are necessary to meet the needs of our changing society and to advance the quality of human life

Student learning outcomes

Graduates of the M.S. in Engineering degree program will be able to demonstrate:

- The ability to apply advanced knowledge of mathematics, science or engineering
- 2. The ability to communicate effectively
- 3. The ability to identify, formulate and solve engineering problems

Degree requirements

Thesis option

In addition to the VCU Graduate School graduation requirements, students seeking the M.S. degree are required to take a minimum of 30 credit hours of approved graduate courses (including research). Each student must complete 12 credit hours of concentration-specific course work, 12 credit hours in electives and six credit hours in thesis research. The student's adviser must review and approve all course work and thesis research credit hours. The total of all credit hours must be at least 30. No elective courses may be used for both M.S. and Ph.D. degrees. At least half of the credit hours required in the student's program must be those designated as exclusively for graduate students, that is, those at the 600 level or above.

Each student must conduct an original investigation under the supervision of the permanent adviser and prepare a thesis reporting the results of this research and analyzing its significance in relation to existing scientific knowledge. This study is reported in a thesis prepared in acceptable form and style. Upon approval of the thesis by the adviser, the student submits a copy to each member of the advisory committee. The student's advisory committee members examine the thesis and decide upon its acceptability. Each committee member reports to the student's adviser when the thesis is acceptable for defense. The thesis is approved for defense only if accepted unanimously. Upon approval of the thesis, the student appears for a final oral examination administered by the student's advisory committee. This examination of an M.S. candidate includes the subject matter of course work as well as the thesis.

There are three components of each M.S. in Engineering thesis curriculum:

- Concentration-specific component: This component allows the student to
 pursue a series of courses that focus on a specific field of engineering and
 serve as the student's primary engineering discipline. Students seeking to take
 course work and conduct their research in the engineering concentration must
 contact the graduate program coordinator or department chair of engineering
 for detailed information about that option.
- Electives component: This component allows the student to take courses in either engineering or science with approval of the student's adviser. The option can be tailored to meet the individual student's academic goals and research interests.
- Directed research component: This component emphasizes research directed toward completion of degree requirements under the direction of an adviser and advisory committee.

Non-thesis option

Students seeking the non-thesis M.S. degree are required to take a minimum of 30 credit hours of approved graduate courses. Each student must complete 15 credit hours in concentration course work and 15 credit hours in option electives course work

Each non-thesis student must have a plan of study by the end of the first semester or prior to completing nine credit hours. This plan of study (and all revisions) must be approved by the student's adviser and the assistant dean for graduate affairs of the School of Engineering. The student's adviser must review/approve all course work in advance of enrollment. At least half the credit hours required in the student's program must be designated as 600 level or above.

There are two components of each M.S. in Engineering non-thesis curriculum:

Concentration-specific component: This component allows the student to pursue a series of courses that focus on a specific field of engineering and serve as the student's primary engineering discipline.

Electives component: This component allows the student to take courses in either engineering or science with approval of the student's adviser.

The concentration can be tailored to meet the individual student's academic goals and research interests. Students seeking to take course work and conduct their research in the engineering concentration should contact the appropriate graduate program coordinator or department chair of engineering for detailed information about that option.

Curriculum requirements

Thesis option

Courses	Credit hours
Concentration-specific component: ENGR course work	12
Electives: engineering or science course work	12
Directed research: ENGR 697 Directed Research	6
Total graduate credit hours required (minimum)	30
Non-thesis option	
Courses	Credit hours
Concentration-specific component: ENGR course work	15
Electives: engineering or science course work	15
Total graduate credit hours required (minimum)	30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student handbook is available on the School of Engineering website.

Engineering, Master of Science (M.S.) with a concentration in chemical and life science engineering

Graduate program director

Vamsi K. Yadavalli, Ph.D. Associate professor vyadavalli@vcu.edu (804) 828-0587

Additional contact

B. Frank Gupton, Ph.D.

Research professor and interim chair, Department of Chemical and Life Science Engineering

bfgupton@vcu.edu (804) 828-4799

Program website: chemical.egr.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Engineering, Doctor of Philosophy (Ph.D.) with a concentration in chemical and life science engineering

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Engineering, Master of Science (M.S.) with a concentration in chemical and life science engineering			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements: GRE – General
M.S.	Fall (preferred)	Jun 1 (Mar 15 for financial assistance)	International students require TOEFL (A
	Spring	Nov 15	minimum score of 100 in the TOEFL exam is required to be considered for financial assistance.)

In addition to the general admission requirements of the VCU Graduate School and the School of Engineering, applicants to the chemical and life science engineering concentration must have a B.S. degree in chemical engineering or a closely related discipline.

Registration

Students may begin a course of study in either the fall or spring semesters for the engineering programs, although a start in the fall semester is preferred.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission

The mission of the M.S. in Engineering degree is to provide graduate students with learning opportunities for acquiring a broad foundation of engineering knowledge including business and manufacturing aspects; an in-depth research experience at the frontiers of engineering; and skills for lifelong learning and professional development. Graduates of this program will pursue careers in business/industry and government, or will pursue doctoral degrees.

- Advanced research skills: To produce graduates who possess the necessary advanced analytical, technical and research skills in engineering and the sciences – responds directly to the higher goal of fulfilling the needs of industry, academe and research laboratories for effective, productive engineers, professors and researchers
- 2. Communication: To produce graduates who possess a facility with both written and oral communications emanates from the requirement that engineers, researchers and professors must be able to interact and share ideas with others in the work environment, and at a higher level, be capable of creative self-expression, conveying knowledge and leadership
- 3. Advanced problem-solving: To produce graduates who demonstrate creativity and innovation in solving technological problems stems from the realization that new knowledge and new solutions to existing problems are necessary to meet the needs of our changing society and to advance the quality of human life

Student learning outcomes

- Apply advanced knowledge of mathematics, science or engineering: Graduates will demonstrate an ability to apply advanced knowledge of mathematics, science or engineering.
- Communicate effectively: Graduates will demonstrate an ability to communicate effectively.
- Identify, formulate and solve engineering problems: Graduates will demonstrate an ability to identify, formulate and solve engineering problems.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students must meet the following requirements.

Thesis option

Students seeking the M.S. degree are required to take a minimum of 30 credit hours of approved graduate courses (including research). Each student must complete 12 credit hours in concentration course work, 12 credit hours in concentration electives course work and six credit hours in thesis research. The

student's adviser must review and approve all course work and thesis research credit hours. The total of all credit hours must be at least 30. No elective courses may be used for both M.S. and Ph.D. degrees. At least half of the credit hours required in the student's program must be those designated as exclusively for graduate students, that is, those at the 600 level or above.

Each student must conduct an original investigation under the supervision of the permanent adviser and prepare a thesis reporting the results of this research and analyzing its significance in relation to existing scientific knowledge. This study is reported in a thesis prepared in acceptable form and style. Upon approval of the thesis by the adviser, the student submits a copy to each member of the advisory committee. The student's advisory committee members examine the thesis and decide upon its acceptability. Each committee member reports to the student's adviser when the thesis is acceptable for defense. The thesis is approved for defense only if accepted unanimously. Upon approval of the thesis, the student appears for a final oral examination administered by the student's advisory committee. This examination of an M.S. candidate includes the subject matter of course work as well as the thesis.

Non-thesis option

Students seeking the non-thesis M.S. degree are required to take a minimum of 30 credit hours of approved graduate courses. Each student must complete 15 credit hours in concentration course work and 15 credit hours in option electives course work

Each non-thesis student must have a plan of study by the end of the first semester or prior to completing nine credit hours. This plan of study (and all revisions) must be approved by the student's adviser and the assistant dean for graduate affairs of the School of Engineering. The student's adviser must review/approve all course work in advance of enrollment. At least half the credit hours required in the student's program must be designated as 600 level or above.

Curriculum requirements

There are three components of each M.S. in Engineering option:

- Concentration (option-specific) component: This component allows the student to pursue a series of courses that focus on a specific field of engineering and serve as the student's primary engineering discipline.
- Option electives component: This component allows the student to take courses in either engineering or science with approval of the student's adviser (e.g. CLSE, ENGR, CHEM courses at 500 level or higher)
- Directed research component: This component emphasizes research directed toward completion of degree requirements under the direction of an adviser and advisory committee.

The option can be tailored to meet the individual student's academic goals and research interests. Students seeking to take course work and conduct their research in the chemical and life science engineering concentration should contact the graduate program coordinator or department chair of chemical and life science engineering for detailed information about that concentration.

Thesis option

hours
12
12
6

Total graduate credit hours required (minimum)	30
Non-thesis option	
Courses	Credit hours
Concentration component – CLSE course work	15
Required	
CLSE 654 Equilibrium Analysis in Chemical and Biological Systems 3	3
CLSE 655 Nonequilibrium Analysis in Chemical and Life Science Engineering	;
CLSE 656 Advanced Chemical Reaction Engineering	}
Choose additional CLSE course work at the 500 level or higher	ó
Option electives – engineering or science course work	15
Total graduate credit hours required (minimum)	30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Credit

Student handbook is available on the School of Engineering website.

Engineering, Master of Science (M.S.) with a concentration in electrical and computer engineering

Graduate program director

Xubin He, Ph.D. Associate professor xhe2@vcu.edu (804) 827-7627

Additional contact

Robert H. Klenke, Ph.D.

Associate professor and interim chair, Department of Electrical and Computer Engineering

rhklenke@vcu.edu

(804) 827-7007

Program website: electrical-and-computer.egr.vcu.edu/graduate

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Engineering, Doctor of Philosophy (Ph.D.) with a concentration in electrical and computer engineering

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Engineering, Master of Science (M.S.) with a concentration in electrical and computer engineering			
Degree:	Semester(s) of	Deadline	Test requirements:
	entry:	dates:	GRE - General
M.S.	Fall (preferred)	Jun 1 (Feb 15 for	
	,	financial assistance)	TOEFL or IELTS is required for
	Spring	Nov 15	international students

In addition to the general admission requirements of the VCU Graduate School and the School of Engineering, applicants to the electrical and computer engineering option must have a B.S. degree in electrical engineering, computer engineering or a closely related discipline.

Registration

Students may begin a course of study in either the fall or spring semesters for the engineering programs, although a start in the fall semester is preferred.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program mission

The mission of the M.S. in Engineering degree is to provide graduate students with learning opportunities for acquiring a broad foundation of engineering knowledge including business and manufacturing aspects; an in-depth research experience at the frontiers of engineering; and skills for lifelong learning and professional development. Graduates of this program will pursue careers in business/industry and government, or will pursue doctoral degrees.

- Advanced research skills: To produce graduates who possess the necessary advanced analytical, technical and research skills in engineering and the sciences – responds directly to the higher goal of fulfilling the needs of industry, academe and research laboratories for effective, productive engineers, professors and researchers
- Communication: To produce graduates who possess a facility with both written and oral communications – emanates from the requirement that engineers, researchers and professors must be able to interact and share ideas

- with others in the work environment, and at a higher level, be capable of creative self-expression, conveying knowledge and leadership
- 3. Advanced problem-solving: To produce graduates who demonstrate creativity and innovation in solving technological problems – stems from the realization that new knowledge and new solutions to existing problems are necessary to meet the needs of our changing society and to advance the quality of human life

Student learning outcomes

- Apply advanced knowledge of mathematics, science or engineering: Graduates will demonstrate an ability to apply advanced knowledge of mathematics, science or engineering.
- Communicate effectively: Graduates will demonstrate an ability to communicate effectively.
- Identify, formulate and solve engineering problems: Graduates will demonstrate an ability to identify, formulate and solve engineering problems.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students must meet the following requirements.

Thesis option

Students seeking the M.S. degree are required to take a minimum of 30 credit hours of approved graduate courses (including research). Each student must complete 12 credit hours in concentration course work, 12 credit hours in concentration electives course work and six credit hours in thesis research. The student's adviser must review and approve all course work and thesis research credit hours. The total of all credit hours must be at least 30. No elective courses may be used for both M.S. and Ph.D. degrees. At least half of the credit hours required in the student's program must be those designated as exclusively for graduate students, that is, those at the 600 level or above.

Each student must conduct an original investigation under the supervision of the permanent adviser and prepare a thesis reporting the results of this research and analyzing its significance in relation to existing scientific knowledge. This study is reported in a thesis prepared in acceptable form and style. Upon approval of the thesis by the adviser, the student submits a copy to each member of the advisory committee. The student's advisory committee members examine the thesis and decide upon its acceptability. Each committee member reports to the student's adviser when the thesis is acceptable for defense. The thesis is approved for defense only if accepted unanimously. Upon approval of the thesis, the student appears for a final oral examination administered by the student's advisory committee. This examination of an M.S. candidate includes the subject matter of course work as well as the thesis.

Non-thesis option

Students seeking the non-thesis M.S. degree are required to take a minimum of 30 credit hours of approved graduate courses. Each student must complete 15 credit hours in concentration course work and 15 credit hours in option electives course work.

Each non-thesis student must have a plan of study by the end of the first semester or prior to completing nine credit hours. This plan of study (and all revisions) must be approved by the student's adviser and the assistant dean for graduate affairs of the School of Engineering. The student's adviser must review/approve all course work in advance of enrollment. At least half the credit hours required in the student's program must be designated as 600 level or above.

Curriculum requirements

Thesis option

Courses Credit hours

Concentration component – EGRE course work (EGRE 500 level or higher, or courses approved by the advisory committee)

This component allows the student to pursue a series of courses that focus on a specific field of engineering and serve as the student's primary engineering discipline.

Option electives – engineering or science course work (including EGRE, 12 ENGR, EGRB, EGRM, EGMN, CMSC, CLSE, PHYS, MATH, OPER, STAT, CHEM, 500 level or higher, or courses approved by the advisory committee)

This component allows the student to take courses in either engineering or science with approval of the student's adviser.

Directed research component: This component emphasizes research directed toward completion of degree requirements under the direction of an adviser and advisory committee.

EGRE 697 Directed Research in Electrical and Computer Engineering

Total graduate credit hours required (minimum)

The option can be tailored to meet the individual student's academic goals and research interests. Students seeking to take course work and conduct their research in the electrical and computer engineering concentration should contact the graduate program coordinator or department chair of electrical and computer engineering for detailed information about that concentration.

Non-thesis option

Courses	Credit
Courses	hours

Concentration component – EGRE 500 level or higher

This component allows the student to pursue a series of courses that focus on a specific field of engineering and serve as the student's primary engineering discipline.

Option electives – engineering or science course work (including EGRE, 15 ENGR, EGRB, EGRM, EGMN, CMSC, CLSE, 500 level or higher) This component allows the student to take courses in either engineering or

Total graduate credit hours required (minimum) 30

The option can be tailored to meet the individual student's academic goals and research interests. Students seeking to take course work and conduct their research in the electrical and computer engineering concentration should contact the graduate program coordinator or department chair of electrical and computer engineering for detailed information about that concentration.

Degree candidacy requirements

science with approval of the student's adviser.

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student handbook is available on the School of Engineering website.

Department of Biomedical Engineering

The Department of Biomedical Engineering offers programs at the baccaluareate, master's and doctoral level.

Biomedical engineering provides in-depth study in a variety of specialization areas including biomedical imaging systems, orthopaedic biomechanics, tissue and cellular engineering, biomaterials, artificial organs, human-computer interfaces, cardiovascular devices and rehabilitation engineering. The programs allow students to participate in cutting-edge research in one of the nations most advanced engineering facilities. The department has ongoing collaborations with numerous industries, federal laboratories, the VCU science departments, the university's MCV Campus, the Hunter Holmes McGuire Veterans Affairs Medical Center, the Virginia BioTechnology Research Park and numerous biomedical and clinical programs throughout the VCU Medical Center's MCV Hospitals.

Administration

Gerald E. Miller

30

15

Professor and Department Chair www.egr.vcu.edu/bme

Biomedical engineering courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to biomedical engineering (EGRB) courses.

Follow these links to general engineering (ENGR) courses or the (ENGZ) laboratory.

Biomedical Engineering, Doctor of Philosophy (Ph.D.)

Graduate program director

Jennifer S. Wayne, Ph.D.

Professor and associate chair, Department of Biomedical Engineering jwayne@vcu.edu

(804) 828-2595

Additional contact

Gerald E. Miller, Ph.D.

Professor and chair, Department of Biomedical Engineering gemiller@ycu.edu

(804) 828-7263

Program website: biomedical.egr.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Biomedical Engineering, Master of Science (M.S.)

Medicine, Doctor of (M.D.)/Biomedical Engineering, Doctor of Philosophy (Ph.D.) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Biomedical Engineering, Doctor of Philosophy (Ph.D.)			
Semester(s) of	Deadline	Test requirements:	
entry:	dates:	GRE – General	
Fall (preferred)	Jun 1 (Feb 15 for		
•	financial assistance)	International students	
Spring	Nov 15	require TOEFL	
	Semester(s) of entry: Fall (preferred)	Semester(s) of Deadline entry: dates: Fall (preferred) Jun 1 (Feb 15 for financial assistance)	

Special requirements:

Acceptance of an applicant is based upon the recommendation of the admissions committee with approval of the department chair and the associate dean for graduate studies.

In addition to the general admission requirements of the VCU Graduate School, biomedical engineering has the following admission criteria for all entering graduate students:

- Minimum GPA of 3.0 during the previous 60 credit hours (for applicants with a B.S.)
- 2. Minimum GRE score of 300 (combined verbal reasoning and quantitative reasoning) including a minimum 148 on the quantitative reasoning
- Minimum TOEFL score of 101 Internet-based for students whose first or native language is not English

Biomedical engineering will accept a maximum of six credit hours for transfer into either the M.S. or Ph.D. program if the original grades for such courses are B or higher (or equivalent).

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program mission

The mission of the Doctor of Philosophy in Biomedical Engineering is to educate biomedical engineering students to be significant contributors in health care and in research and development in biomedicine and bioengineering. The curriculum closely links technical fundamentals in science, engineering and the life sciences, together with the ability to function on multidisciplinary teams, to communicate effectively and to achieve the knowledge tools necessary for lifelong learning.

The purpose of the program is to:

- Provide students with a graduate education that prepares them for current and future challenges in biomedical engineering
- Produce graduates who possess the necessary advanced analytical and technical skills in engineering and sciences — responds directly to the higher goals of fulfilling the needs of industry for effective, productive engineers and of providing economic development for the region, state and nation
- 3. Produce graduates who possess a facility with both written and oral communications emanates from the requirement that engineers must be able to interact and share ideas with others in the work environment, and at a higher level, be capable of creative self-expression and leadership

4. Produce graduates who demonstrate creativity and innovation in solving technological problems — stems from the realization that new knowledge and new solutions to existing problems are necessary to meet the needs of our changing society and to advance the quality of human life

Graduates possess the ability to formulate, analyze and solve problems, analytically and/or experimentally, in the biomedical engineering industry, in the clinical setting or in biomedical research. The career paths of BME graduates in these arenas would be enhanced as a result of these skills. Graduates can work effectively in teams to solve biomedical and/or clinical problems including the interconnection of engineering and clinical personnel toward the solution of problems of compelling clinical and biomedical interest and need, with particular reference to the biomedical engineering industry, in the clinical setting or in biomedical research. The career paths of BME graduates in these arenas would be enhanced as a result of these skills.

Student learning outcomes

- Fundamentals in math and science: Graduates can analyze and solve problems in the foundation areas of mathematics, the sciences and statistics.
- Fundamentals in engineering: Graduates can analyze and solve problems in the foundation engineering areas of instrumentation, signal processing, mechanics and materials
- Fundamentals in life science: Graduates can analyze and solve problems in the life sciences, including physiology, and understand the relationship between the life sciences, mathematics and engineering.
- 4. Experimental skills: Graduates can formulate lab experiments, collect and analyze data from physical and simulated systems to solve technical problems, and conduct physiology and life science laboratory experiments to integrate engineering and physiology.
- 5. Design and analysis: Graduates can design and implement an optimized solution to meet a set of specifications and constraints; graduates can design systems used in biomedical applications which involve the interconnection between engineering and the life sciences; graduates can analyze biomedical problems and develop solutions which are originally open-ended.
- Innovation and creativity: Graduates can examine technological challenges in biomedical and health-related topics in new ways and develop innovative solutions.
- Communication skills: Graduates can organize and write well-organized and accurate theses/dissertations/technical reports, including appropriate citations; graduates can deliver oral presentations to peers and supervisors using the latest presentation technologies.
- 8. Lifelong learning and multidisciplinary teams: Graduates can understand the need for and have an appreciation of multidisciplinary teams in biomedical engineering and related fields; graduates have a recognition of the need for, and an ability to engage in, lifelong learning; graduates have an understanding of the knowledge tools necessary to achieve lifelong learning and career development.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students must meet the following requirements:

The Ph.D. in Biomedical Engineering program is nominally a three-year program. Prior evidence of completion of physiology and/or statistics may result in a waiver of the requirements for these courses as determined by the graduate program director and/or the department chair. These credit hours would be replaced by other graduate-level didactic course work reflective of the field of study. A period of residence of at least three consecutive terms is required. Residency is defined as registration for at least nine credit hours per term. A time limit of eight calendar years, beginning at the time of first registration, is placed on work to be credited toward the Doctor of Philosophy degree.

At the conclusion of the first year of doctoral study (or when the core course requirements have been satisfied), each doctoral student must successfully complete written and oral portions of a comprehensive examination. This examination is designed to test the student on fundamental knowledge in engineering as evidenced by the core (and related elective) courses within the curriculum. Upon completion of this examination, a doctoral student is permitted to initiate a doctoral research project and to complete additional course work consisting of biomedical engineering, clinical and science electives.

Upon completion of all course work and the intended research, a doctoral student must prepare a dissertation describing the completed research. A dissertation defense, under the direction of the advisory committee, will be scheduled to examine the student's research, dissertation documentation and underlying fundamental knowledge needed to complete the research. Upon successful completion of the defense and dissertation, the doctoral student may apply for graduation from Virginia Commonwealth University with the Doctor of Philosophy in Biomedical Engineering.

Curriculum requirements

Courses		Credit hours
Required biomedical engineering courses		12
EGRB 507 Biomedical Electronics and Instrumentation	3	
EGRB 511 Fundamentals of Biomechanics	3	
EGRB 603 Biomedical Signal Processing	3	
EGRB 613 Biomaterials	3	
Required courses in other departments Physiology and statistics (PHIS 501; BIOS or STAT at 500 level or above)		8
Minimum elective courses (e.g. EGRB, EGRM, ENGR, PHYS, MATH, BIOL, PHIS, BIOC at 500 level or above)		15
Research		37
EGRB 690 Biomedical Engineering Research Seminar	4	
EGRB 697 Directed Research in Biomedical Engineering (required at a level to be determined by each student's graduate advisory committee)	33	
Total graduate credit hours required (minimum)		72

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

$\label{eq:Degree candidacy requirements} \textbf{Degree candidacy requirements}$



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student handbook is available on the School of Engineering website.

Medicine, Doctor of (M.D.)/Biomedical Engineering, Doctor of Philosophy (Ph.D.) [combined]

Graduate program director

Jennifer S. Wayne, Ph.D.

Professor and associate chair, Department of Biomedical Engineering jwayne@vcu.edu (804) 828-2595

Additional contact

Gerald E. Miller, Ph.D.

Professor and chair, Department of Biomedical Engineering gemiller@vcu.edu (804) 828-7263

Program website: biomedical.egr.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Biomedical Engineering, Doctor of Philosophy (Ph.D.) Biomedical Engineering, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

The M.D./Ph.D. program seeks to train physician-scientists for careers that bridge basic and clinical science. Physician-scientists will translate laboratory discoveries into better patient outcomes. The program begins two months prior to the first year of medical school. These students arrive on campus for orientation and complete two laboratory rotations before the start of medical school classes. They complete the first two years of medical school and, after taking the first part of the U.S. National Medical Licensing Examination, enter a Ph.D.-granting department or program as a graduate student. Graduate-level course work, examinations and research will be guided by the dissertation adviser and the dissertation committee, with oversight by members of the M.D./Ph.D. steering committee. The main undertaking at this phase is laboratory research that leads to the Ph.D. dissertation. After completion of doctoral degree requirements, students move to the clinical year of medical school. Students may begin the clinical year of medical school immediately after completion of doctoral degree requirements, regardless of the time in the calendar year, and, 14 to 16 months later, may complete their medical school requirements. These students are exempt from the major part of the fourth year of medical school.

Prospective students submit applications through the American Medical College Application Service. Upon review of the AMCAS documents, qualified applicants are sent supplemental admission materials, including an application for the M.D./ Ph.D. program. Those invited to Richmond for interviews will spend one day in the standard interview for the School of Medicine and will spend a second day interviewing with members of the M.D./Ph.D. steering committee, as well as touring labs of faculty scientists.

Admission of medical students to the Ph.D. phase of training takes place formally following completion of the M-II year of M.D. training. A copy of the student file is transferred to the Office of Graduate Education and the individual is formally accepted to Ph.D. training by the VCU Graduate School.

The requirements for a combined professional school/graduate school degree in the School of Medicine are equivalent to those required of students seeking a graduate degree alone and are determined by the individual program.

For additional information, please see the program Web site at $\frac{mdphd.vcu.edu}{}$.

Refer to the program search function of the online VCU Bulletins for a complete description of both programs.

Biomedical Engineering, Master of Science (M.S.)

Graduate program director

Jennifer S. Wayne, Ph.D.

Professor and associate chair, Department of Biomedical Engineering jwayne@vcu.edu

(804) 828-2595

Additional contact

Gerald E. Miller, Ph.D.

Professor and chair, Department of Biomedical Engineering gemiller@vcu.edu

(804) 828-7263

Program website: biomedical.egr.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Biomedical Engineering, Doctor of Philosophy (Ph.D.) Medicine, Doctor of (M.D.)/Biomedical Engineering, Doctor of Philosophy (Ph.D.) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Biomedical Engineering, Master of Science (M.S.)			
Degree:	Semester(s) of	Deadline	Test requirements:
	entry:	dates:	GRE – General
M.S.	Fall (preferred)	Jun 1 (Feb 15 for	
		financial assistance)	International students
	Spring	Nov 15	require TOEFL

Special requirements:

Acceptance of an applicant is based upon the recommendation of the admissions committee with approval of the department chair and the associate dean for graduate studies

In addition to the general admission requirements of the VCU Graduate School, biomedical engineering has the following admission criteria for all entering graduate students:

- 1. Minimum GPA of 3.0 during the previous 60 credit hours (for applicants with a B.S.)
- 2. Minimum GRE score of 300 (combined verbal reasoning and quantitative reasoning) including a minimum 148 on the quantitative reasoning
- Minimum TOEFL score of 101 Internet-based for students whose first or native language is not English

Biomedical engineering will accept a maximum of six credit hours for transfer into the M.S. program if the original grades for such courses are B or higher (or equivalent).

Acceptance of an applicant is based upon the recommendation of the admissions committee with approval of the department chair and the associate dean for graduate studies.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The goal of the Master of Science in Biomedical Engineering program is to educate students to be significant contributors in health care and in research and development in biomedicine and bioengineering. The curriculum closely links technical fundamentals in science, engineering and the life sciences, together with the ability to function on multidisciplinary teams, to communicate effectively and to achieve the knowledge tools necessary for lifelong learning.

Program purpose

- 1. Provide students with a graduate education that prepares them for current and future challenges in biomedical engineering
- Produce graduates who possess the necessary advanced analytical and technical skills in engineering and sciences — responds directly to the higher goals of fulfilling the needs of industry for effective, productive engineers and of providing economic development for the region, state and nation
- 3. Produce graduates who possess a facility with both written and oral communications emanates from the requirement that engineers must be able to interact and share ideas with others in the work environment, and at a higher level, be capable of creative self-expression and leadership
- 4. Produce graduates who demonstrate creativity and innovation in solving technological problems — stems from the realization that new knowledge and new solutions to existing problems are necessary to meet the needs of our changing society and to advance the quality of human life

Graduates possess the ability to formulate, analyze and solve problems, analytically and/or experimentally, in the biomedical engineering industry, in the clinical setting or in biomedical research. The career paths of BME graduates in these arenas would be enhanced as a result of these skills. Graduates can work effectively in teams to solve biomedical and/or clinical problems including the interconnection of engineering and clinical personnel toward the solution of problems of compelling clinical and biomedical interest and need, with particular reference to the biomedical engineering industry, in the clinical setting or in biomedical research. The career paths of BME graduates in these arenas would be enhanced as a result of these skills.

Student learning outcomes

- Fundamentals in math and science: Graduates can analyze and solve problems in the foundation areas of mathematics, the sciences and statistics.
- Fundamentals in engineering: Graduates can analyze and solve problems in the foundation engineering areas of instrumentation, signal processing, mechanics and materials.
- Fundamentals in life science: Graduates can analyze and solve problems in the life sciences, including physiology, and understand the relationship between the life sciences, mathematics and engineering.
- 4. Experimental skills: Graduates can formulate lab experiments, collect and analyze data from physical and simulated systems to solve technical problems, and conduct physiology and life science laboratory experiments to integrate engineering and physiology.
- 5. Design and analysis: Graduates can design and implement an optimized solution to meet a set of specifications and constraints; graduates can design systems used in biomedical applications which involve the interconnection between engineering and the life sciences; graduates can analyze biomedical problems and develop solutions which are originally open-ended.
- Innovation and creativity: Graduates can examine technological challenges in biomedical and health-related topics in new ways and develop innovative solutions.
- 7. Communication skills: Graduates can organize and write well-organized and accurate theses/dissertations/technical reports, including appropriate citations; graduates can deliver oral presentations to peers and supervisors using the latest presentation technologies.
- 8. Lifelong learning and multidisciplinary teams: Graduates can understand the need for and have an appreciation of multidisciplinary teams in biomedical engineering and related fields; graduates have a recognition of the need for, and an ability to engage in, lifelong learning; graduates have an understanding of the knowledge tools necessary to achieve lifelong learning and career development.

Degree requirements

In addition to the VCU Graduate School graduation requirements, this program is nominally a two-year program leading to the M.S. in Biomedical Engineering. Prior evidence of completion of physiology may result in a waiver of the requirements for this course as determined by the graduate program director and/ or the department chair. These credit hours should be replaced by other graduate-level didactic course work reflective of the field of study. Each Master of Science student must successfully complete a thesis describing his or her individualized research project. At the completion of the research, the student must present the research to the advisory committee and undergo an examination of the research results, thesis documentation and underlying educational foundation necessary to have successfully completed the research. Upon successful completion of the examination and thesis, the student may apply for graduation from Virginia Commonwealth University with the Master of Science in Biomedical Engineering.

Curriculum requirements

Courses		
Required biomedical engineering courses		9
EGRB 511 Fundamentals of Biomechanics	3	
EGRB 603 Biomedical Signal Processing	3	
EGRB 613 Biomaterials	3	
Required physiology course		5
PHIS 501 Mammalian Physiology	5	
Minimum elective courses		9
(e.g. EGRB, EGRM, ENGR, PHYS, MATH, BIOL, PHIS BIOC at 500 level or above)*		
Research		7
EGRB 690 Biomedical Engineering Research Seminar	1	
EGRB 697 Directed Research in Biomedical Engineering**	6	
Total graduate credit hours required (minimum)		30

- * The nine credit hours listed are minimum elective courses required for graduation. However, a student's advisory committee may require additional electives reflective of the field of study.
- ** Directed research (EGRB 697) is required at a level to be determined by each student's graduate advisory committee.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student handbook is available on the School of Engineering website.

Department of Chemical and Life Science **Engineering**

Chemical and life science engineering represents the formal interaction of chemical engineering with the life sciences. VCU's Department of Chemical and Life Science Engineering is uniquely poised to bring these two premier disciplines together to form a program distinct in the nation. Programs are offered at the undergraduate and graduate levels.

Life science engineering — with interest areas including stem cell and stem cell-derived tissue engineering, biosciences/biotechnology, cellular engineering, biochips and biosensors, bioinformatics and molecular biocomputing, genetic and protein molecular engineering, environmental life science engineering, and molecular- and cellular-based therapeutics — is the fastest growing of all industries that currently employ engineers.

Chemical engineering and life science engineering share a broad range of common foundational knowledge bases, including the principles of mass and energy balances, transport phenomena and thermodynamics, surface and interfacial science, and reaction science and engineering. Strong academic and research programs in chemical and life science engineering will provide a wealth of exciting professional opportunities for successful graduates of the VCU program.

The bachelor's program offers tracks in chemical engineering and life science engineering, and a chemical and life science engineering track is available in the Master of Science in Engineering program, as well as the Ph.D. in Engineering program. The CLSE tracks in the graduate-level programs are designed primarily for students who are interested in applying chemical and engineering principles toward important contemporary topics including process design, metabolic engineering, biosensor and biochip development, high-performance polymers in medicine and energy conversion, polymer surface science, and environmentally benign polymer processing technologies. Major emphasis is placed on chemical and life science engineering fundamentals with additional emphasis on applied chemistry and life sciences.

Administration

B. Frank Gupton

Research Professor and Interim Chair www.egr.vcu.edu/clse

Chemical and life science engineering courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to chemical and life science engineering (CLSE) courses.

Follow these links to general engineering (ENGR) courses or the (ENGZ) laboratory.

Department of Computer Science

The Department of Computer Science offers undergraduate and graduate programs. The Bachelor of Science in Computer Science is a rigorous, highly concentrated curriculum of computer science courses. It includes advanced study in several important areas of computer science and provides a strong foundation in this discipline. Every course is taught by full-time faculty members who also serve as advisers to both undergraduate and graduate students.

The master's degree program emphasizes continuing self-development of individuals currently engaged in science-, technology- and engineering-related fields. It prepares persons who have completed undergraduate majors in these fields for entry into careers in areas that use computing technology. Both the theoretical and applied aspects of computer science are emphasized in this program. The program offers courses in a wide range of areas in computer science including machine learning, artificial intelligence, cybersecurity and cloud computing, data mining, bioinformatics, and medical informatics.

Administration

Krzystof J. Cios

Professor and Chair www.egr.vcu.edu/cs

Computer science courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to computer science (CMSC) courses.

Computer and Information Systems Security, Master of Science (M.S.)

Graduate program director

Meng Yu, Ph.D. Associate professor myu@vcu.edu (804) 827 3986

Additional contact

Gurpreet S. Dhillon, Ph.D. Professor gdhillon@vcu.edu (804) 828-1737

Program websites: computer-science.egr.vcu.edu/graduate/computer-and-information-systems-security and business.vcu.edu/graduate/ciss.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Computer and Information Systems Security, Master of Science (M.S.)			
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE or GMAT
	Fall	Jul 1	
	Spring	Nov 1	International students require TOEFL

Applicants must meet all general admission requirements of the VCU Graduate School.

The Master of Science in Computer and Information Systems Security, jointly offered by the Department of Computer Science in the School of Engineering and the Department of Information Systems in the School of Business, is designed primarily for students interested in professional roles in business, industry or government. Program graduates will serve as leaders within the computer and information systems security community and as strategic partners within the enterprises in which they work. They will stay attuned to, and anticipate changes in, the computer and information systems security environment and ensure that security solutions create a sound, competitive, cost-effective advantage for the enterprise.

Graduates of the program will be prepared to take leading roles in planning, organizing, managing, designing and configuring security solutions in public and private organizations and will be familiar with state-of-the-art security technologies and best practices. The program takes a broad interdisciplinary approach to computer and information systems security that will help students develop the ability to see the larger organization and social, political, ethical and

economic aspects of information security, as well as offering a unique graduatelevel curriculum that is both technically and managerially oriented.

For additional information, please visit the program website.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program mission

The Master of Science in Computer and Information Systems Security provides for the scholarly and professional needs of several groups who have either accepted or are keen to take on the challenge of protecting information resources of firms and society at large.

Program goal

Graduates of this program are expected to take on leadership positions, including as chief security officer, in computer and information systems security in organizations. VCU's program takes a broad interdisciplinary approach to computer and information systems security that will help develop the student's ability to see the larger organizational, social, political, ethical and economic aspects of information security.

Student learning outcomes

Graduates of the program will be:

- 1. Prepared to take leading roles in planning, organizing, managing, designing and configuring security solutions in public and private organizations
- 2. Familiar with state-of-the-art security technologies and best practices

Degree requirements

In addition to general VCU Graduate School graduation requirements, the M.S. in Computer and Information Systems Security requires 30 graduate credit hours, including a core curricular component, an elective component and a practice component. The elective component consists of three courses chosen by the student and selected from CISS course offerings or, with the approval of the program co-directors, from courses offered by the departments of Computer Science, Information Systems, Criminal Justice and Forensic Science. The practice component, taken near the end of the student's course work, ensures an opportunity for the student to apply principles to practice.

Curriculum requirements

Prerequisites are determined by the faculty adviser at the time of admission.

Courses	Credit
Courses	hours

Core component 15

CISS/CMSC 618 Database and Application Security	3
CISS/CMSC 622 Network and Operating Systems Security	3
CISS 624/CMSC 620 Applied Cryptography	3
CISS 634 Ethical, Social and Legal Issues in Computer and Informa	tion 3
Systems Security	
CISS/INFO 644 Principles of Computer and Information Systems Security	3

Elective component

Choose 12 credit hours of CISS courses or, with the approval of program co-directors, courses offered by the departments of Computer Science, Information Systems, Criminal Justice or Forensic Science.

Practice component	3
CISS 693 Practice of Computer and Information Systems Security	3

Total graduate credit hours required (minimum) 30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Computer Science, Master of Science (M.S.)

Graduate program director

Tom J. Arodz, Ph.D. Assistant professor tarodz@vcu.edu (804) 827-3989

Additional contact

Krzysztof J. Cios, Ph.D. Professor and chair, Department of Computer Science kcios@vcu.edu (804) 828-9671

Program website: computer-science.egr.vcu.edu/graduate

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Computer and Information Systems Security, Master of Science (M.S.) Computer Science, Master of Science (M.S.), accelerated Bachelor of Science in Computer Science

Engineering, Doctor of Philosophy (Ph.D.) with a concentration in computer science

Apply online at graduate.admissions.vcu.edu.

Admission requirements

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Computer Science, Master of Science (M.S.)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements: GRE – General
M.S.	Fall	Jun 1 (Feb 15 for	
		financial assistance)	International students require TOEFL
	Spring	Nov 15	1

In addition to the general admission requirements of the VCU Graduate School and the School of Engineering, applicants to the M.S. program in computer science must satisfy the requirements outlined below.

Acceptance of an applicant is based upon the recommendation of the graduate committee with approval of the program chair and the associate dean for graduate studies.

Undergraduate education in computer science or in a related discipline or completion of Post-baccalaureate Undergraduate Certificate in Computer Science is highly preferred.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission

The program is designed to develop research skills and educate CS students to be major contributors in the computing industry. The graduate program in computer science provides state-of-the-art education through the use of didactic and research courses to those students who wish to further their knowledge and careers within the computing industry. The program emphasizes continuing self-development and broadening the knowledge of individuals currently engaged in science, technology and engineering-related fields. It also prepares persons who have completed undergraduate majors in these fields for entry into a career in the numerous areas that use computing technology. Both the theoretical and applied aspects of computer science are emphasized in this program.

Program goals

The goal of the Master of Science in Computer Science program is to provide students with a graduate education that prepares them for current and future challenges in the field of computer science. The major goal is to educate graduates who will possess the ability to formulate, analyze and solve problems, analytically and/or experimentally (in software and hardware), in computer science and industry. The master's program will:

- Provide students with training in state-of-the-art on different areas of computer science and the computing industry
- 2. Provide students with professional preparation for their future careers
- 3. Prepare students to tackle current and future challenges in the field of computer science

Student learning outcomes

- Apply advanced knowledge of mathematics, science and engineering Graduates will demonstrate an ability to apply advanced knowledge of mathematics, science and/or engineering.
- Problem analysis, design and implementation on computer systems –
 Graduates will demonstrate an ability to analyze problems and to design and
 implement solutions on computer systems.
- Communicate effectively Graduates will demonstrate an ability to communicate effectively.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students may choose either a thesis or non-thesis degree program. The thesis option is suggested for students who have a strong research interest or those who wish to pursue a Ph.D. For students not in the accelerated B.S.-M.S. program, at most, six non-CMSC credit hours may be applied toward the degree. Students in the accelerated B.S.-M.S. program should refer to the rules described in the bulletin.

Non-thesis option

A minimum of 30 credit hours, including:

- At least two courses from the theory foundation area (CMSC 501, CMSC 526, CMSC 620/CISS 624, CMSC 621), one of which must be CMSC 501; at least two courses from the systems foundation area (CMSC 502, CMSC 506, CMSC 608, CMSC 618, CMSC 622); at least two courses from the applied computer science foundation area (CMSC/CISS 609, CMSC 630, CMSC 635, CMSC 678).
- 2. At least 15 credit hours of CMSC courses at the 600 level or greater

Up to 30 percent of a student's non-research graduate-level credit hours can be transferred into the M.S. program from another college or university with approval of the program and the Graduate School.

The number of credit hours that may be transferred by students pursuing an M.S. in Computer Science through the Commonwealth Graduate Engineering Program is limited by CGEP policy to 50 percent of the required credit hours. All transfer credit hours must be approved by the graduate committee using the graduate course transfer form.

For students not in the accelerated B.S.-M.S. program, courses that are transferred are subject to the following rules:

- These credit hours must not have been applied to any other degree; however, they may have been taken as part of a post-baccalaureate graduate certificate program.
- 2. No more than six credit hours in graduate-level courses taken at VCU before admission to the M.S. program may be counted toward the M.S. degree.

At most, three credit hours of CMSC 697 or CMSC 692 may be applied toward the degree.

Thesis option

Students will have to satisfy the following:

- 1. A minimum of 24 non-thesis credit hours, including
 - a. At least two courses from the theory foundation area (CMSC 501, CMSC 526, CMSC 620/CISS 624, CMSC 621), one of which must be CMSC 501; at least two courses from the systems foundation area (CMSC 502, CMSC 506, CMSC 608, CMSC 618, CMSC 622); at least two courses from the applied computer science foundation area (CMSC/ CISS 609, CMSC 630, CMSC 635, CMSC 678)
 - b. At least 12 credit hours of CMSC courses at the 600 level or greater
- 2. Six credit hours of CMSC 697 Directed Research

Up to 30 percent of a student's non-research graduate-level credit hours can be transferred into the M.S. program from another college or university.

The number of credit hours that may be transferred to VCU from other participating institutions by students pursuing an M.S. in Computer Science through the Commonwealth Graduate Engineering Program is limited by CGEP policy to 50 percent of the required credit hours.

All transfer credit hours must be approved by the graduate committee using the graduate course transfer form.

For students not in the accelerated B.S.-M.S. program, courses that are transferred are subject to the following rules:

- These credit hours must not have been applied to any other degree; however, they may have been taken as part of a post-baccalaureate certificate program.
- No more than six credit hours of graduate-level courses taken at VCU before admission to the M.S. program may be counted toward the M.S. degree.

Students seeking to take a research credit course [CMSC 692 Independent Study (maximum three credit hours) or CMSC 697 Directed Research (maximum 6 credit hours)] must find a faculty adviser willing to supervise the research.

In order to advance to master's candidacy, the student must have: (1) completed required course work; (2) have a minimum 3.0 GPA in graduate course work; (3) have no more than six semester credit hours or 20 percent of total semester hours attempted (whichever is greater) at C or below level (C, D, F); and (4) be in compliance with the time to degree, which is 6 years for a master's degree.

The student will produce a written thesis in the format specified by the VCU Graduate School and will publicly defend the thesis before a committee consisting of the thesis adviser, at least one other faculty member from the computer science program and a faculty member from outside of the computer science program.

Curriculum requirements

Non-thesis option

Thesis option

Courses	-	redit ours
Foundational area: theory		6
CMSC 501 Advanced Algorithms (required)	3	
Choose at least one of the following:		
CMSC 526 Theory of Programming Languages	3	
CMSC 620/CISS 624 Applied Cryptography	3	
CMSC 621 Theory of Computation	3	
CMSC 021 Theory of Computation	3	
Foundational area: systems (choose at least two of the following)	6	
CMSC 502 Parallel Algorithms	3	
CMSC 608 Advanced Database	3	
CMSC 622 Network and Operating Systems Security	3	
Foundational area: applied computer science (choose at least two of	6	
the following) CMSC/CISS (00.4 downered Community in all Intelligence)	2	
CMSC/CISS 609 Advanced Computational Intelligence	3	
CMSC 630 Applied Signal and Image Analysis	3	
CMSC 635 Knowledge Discovery and Data Mining	3	
CMSC 678 Statistical Learning and Fuzzy Logic Algorithms	3	
Additional CMSC course work		9
Note: At least 15 credit hours of all CMSC courses must be at the 600 level or greater.		
Research		3
CMSC 692 Independent Study or CMSC 697 Directed Research (At most three credits of CMSC 697 or CMSC 692 may be applied toward the degree.)	., 3	

Total graduate credit hours required (minimum)

30

Courses		Credit hours
Foundational area: theory		6
CMSC 501 Advanced Algorithms (required)	3	
Choose at least one of the following:		
CMSC 526 Theory of Programming Languages	3	
CMSC 620/CISS 624 Applied Cryptography	3	
CMSC 621 Theory of Computation	3	
Foundational area: systems (choose at least two of the following)	6	
CMSC 502 Parallel Algorithms	3	
CMSC 506/EGRE 526 Computer Networks and Communications	3	
CMSC 608 Advanced Database	3	
CMSC/CISS 618 Database and Application Security	3	
CMSC 622 Network and Operating Systems Security	3	
Foundational area: applied computer science (choose at least two of the following)	6	
CMSC/CISS 609 Advanced Computational Intelligence	3	
CMSC 630 Applied Signal and Image Analysis	3	
CMSC 635 Knowledge Discovery and Data Mining	3	
CMSC 678 Statistical Learning and Fuzzy Logic Algorithms	3	
Additional CMSC course work		6
Note: At least 12 credit hours of all CMSC courses must be at the 600 level or greater.		
Research		6
CMSC 692 Independent Study* and/or CMSC 697 Directed Research * At most, three credits of CMSC 697 may be applied toward the degree.)		
Total graduate credit hours required (minimum)		30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student handbook is available on the School of Engineering website.

Computer Science, Master of Science (M.S.), accelerated Bachelor of Science in Computer Science (B.S.) to master's

Graduate program director

Tom J. Arodz, Ph.D. Assistant professor tarodz@vcu.edu (804) 827-3989

Additional contact

Krzysztof J. Cios, Ph.D. Professor and chair, Department of Computer Science kcios@vcu.edu (804) 828-9671

Program website: computer-science.egr.vcu.edu/graduate

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Computer and Information Systems Security, Master of Science (M.S.) Computer Science, Master of Science (M.S.) Engineering, Doctor of Philosophy (Ph.D.) with a concentration in computer science

Apply online at graduate.admissions.vcu.edu.

Students accepted into this selective program accomplish both the B.S. and M.S. degrees within five years by taking additional computer science courses within the first four years of the program. Some of these courses will replace general electives in the B.S. program.

Program administration and minimum requirements

In order to be accepted students must:

- Apply to the computer science graduate committee during the first semester
 after they have completed the last of the following sequence of classes:
 CMSC 101, 255, 256, 302, 303 and 311. Transfer students who enter with all
 of these courses (or equivalents) must apply during their first semester at
 VCU.
- 2. Have a minimum GPA of 3.4 based on CMSC 101, 255, 256, 302, 303 and 311; all grades in any repeated courses will be included in computing this GPA. Students transferring these courses into the program will have the grades from their previous institution included in computing this GPA only for purposes of determining eligibility for this program.
- 3. Have a minimum overall GPA of 3.0.

Students accepted into the accelerated B.S. to M.S. program are not required to complete the GRE for admission to the M.S. portion of the program.

Minimum requirements for accepted students to fulfill the program

Students accepted into the program are required to follow the curriculum outlined below in order to complete both degrees in five years.

In order to complete the B.S. students must present:

- 1. All specific general education and major requirements for the B.S. degree
- Six CMSC 500-level credits beyond those required for the computer science major, which count as general electives toward the B.S. and as CMSC electives toward the M.S.
- 3. Additional credits to total 120 (including 45 upper-level credits)
- Six additional CMSC 500-level credits that do not count toward the B.S. degree (required during the first four years in order to be on track to complete the M.S. during the fifth year)
- 5. 126 credit hours total completed in the first four years.

Upon completion of all requirements for the undergraduate degree, the B.S. may be awarded and the student will formally apply to the master's program. Providing the student has maintained a minimum GPA of 3.2 in the major, acceptance to the

M.S. program is guaranteed. All requirements for the B.S. must be met before students are eligible to take any 600-level course.

In order to complete the M.S.:

- 1. As listed above (Nos. 2 and 4) and taken during the first four year:
 - Six CMSC 500-level credit hours beyond those required for the computer science major, which count as general electives toward the B.S. and as CMSC electives toward the M.S.
 - Six additional CMSC 500-level credits that do not count toward the B.S. degree
- Taken during fifth year:
 - a. 15 CMSC 600-level credits
 - b. Three CMSC graduate-level credits
 - c. 30 credit hours total completed for the M.S. degree.

Refer to the program search function of the online VCU Bulletins for a complete description of both programs, including application instructions and deadlines, contact information and all degree requirements.

Department of Electrical and Computer Engineering

The Department of Electrical and Computer Engineering prepares students for highly competitive, national placement in electrical and computer engineering employment and graduate education by providing a thorough grounding in electrical science and design, together with a sound foundation in mathematics, basic sciences and life skills.

The department offers baccalaureate degrees in computer engineering and electrical engineering, in addition to minors in both areas, as well as the option to choose course work appropriate for a pre-medicine or pre-dentistry curriculum. An electrical and computer engineering track is available in the Master of Science in Engineering as well as the Ph.D. in Engineering. The track is designed to prepare students for practice, research and/or teaching of electrical and computer engineering at the advanced level by providing intensive preparation for professional practice in the microelectronics, nanoelectronics, computer engineering and controls and communications aspects of electrical and computer engineering. At the advanced level, this track prepares individuals to perform original, leading edge research in the broad areas of microelectronics, nanoelectronics, controls and communications and computer engineering.

The curricula of the department provide a strong foundation in the fundamentals of the profession, including engineering problem solving, breadth in the major facets of the profession and the opportunity to specialize in today's critical areas of computer engineering, communication systems and microelectronics. Graduates will be well prepared for constant technological change and growth through lifelong learning.

Administration

Ashok Iyer

Professor and Department Chair

www.egr.vcu.edu/ece.aspx

Electrical and computer engineering courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to electrical and computer engineering (EGRE) courses.

Follow these links to general engineering (ENGR) courses or the (ENGZ) laboratory.

Department of Mechanical and Nuclear Engineering

Mechanical engineering is one of the oldest and broadest engineering disciplines. Mechanical engineers design and analyze machines of all types including automobiles, airplanes, rockets, submarines, power generation systems, biomedical instrumentation, robots, manufacturing systems, household appliances and many, many more. In addition to well-known areas such as nuclear energy, nuclear propulsion and nuclear medicine, nuclear engineers are involved in many other applications of nuclear science and technology in fields as diverse as agriculture, industry, homeland security, forensics, environmental protection and even art. The Department of Mechanical and Nuclear Engineering provides quality graduate and undergraduate education through the following degree-granting programs:

- B.S. in Mechanical Engineering (general mechanical engineering curriculum)
- B.S. in Mechanical Engineering (nuclear engineering concentration)
- M.S. in Mechanical and Nuclear Engineering (thesis and non-thesis options)
- Ph.D. in Engineering (mechanical engineering track)

Current areas of research within the department include but are not limited to energy conversion systems, smart materials, corrosion, medical devices, aerosol science, sensors, radiation detection and measurement, nuclear reactor design, robotics, fluid mechanics, nanotechnology and biomechanics.

Administration

Gary Tepper

Professor and Interim Chair

www.egr.vcu.edu/me

Mechanical engineering courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to mechanical engineering (EGRM) courses.

Follow these links to general engineering (ENGR) courses or the (ENGZ) laboratory.

Mechanical and Nuclear Engineering, Doctor of Philosophy (Ph.D.)

Graduate program director

Karla M. Mossi, Ph.D.

Associate professor

kmmossi@vcu.edu

(804) 827-5275

Additional contact

Gary C. Tepper, Ph.D.

Professor and chair, Department of Mechanical and Nuclear Engineering gctepper@vcu.edu

(804) 827-7030

Program website: mechanical-and-nuclear.egr.vcu.edu/academics/graduate

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Mechanical and Nuclear Engineering, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Mechanical and Nuclear Engineering, Doctor of Philosophy (Ph.D.)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Ph.D.	Fall	Jun 1 (Feb 15 for financial assistance)	GRE – General
		Nov 15	International students require TOEFL
	Spring		

In addition to the general admission requirements of the VCU Graduate School, the following comprise the admissions requirements for the mechanical and nuclear engineering Ph.D. program:

- Proof of graduation from an accredited college or university with either a bachelor's or a master's degree in mechanical engineering, nuclear engineering or a related discipline with a minimum grade point average of 3.0.
- Demonstration of proficiency in spoken and written English. For international students, satisfactory scores on the TOEFL exam are necessary. The University minimum TOEFL score is 550 (paper-based) and 213 (computer-based). The following qualifiers must be submitted to meet the English-language requisite: 100 iBT (graduate) or 6.5 IELTS academic band score.
- Submission of results of the Graduate Record Examination (minimum score for admission to be established annually by the MNE graduate committee).
- Submission of at least three letters of recommendation from former instructors or other individuals qualified to evaluate the applicant's ability to engage in graduate study in mechanical and nuclear engineering.
- 5. Submission of a written statement of purpose that clearly demonstrates commitment to a career in mechanical and nuclear engineering.

The MNE graduate committee may admit students unconditionally or provisionally. Provisional admission may be granted when deficiencies are identified; these deficiencies should be remedied by the time specified by the admissions committee. At the end of the provisional period, the student's progress is evaluated. Failure to meet the goals set forth by the MNE graduate committee at the time of admission results in a show-cause notice. A response to this notice that is deemed unsatisfactory results in a recommendation for dismissal. The student has the right to appeal the recommendation for dismissal following procedures set forth by the School of Engineering and the VCU Graduate School. Remedial courses, or those designed to remove deficiencies, will not be accepted for credit hours toward the fulfillment of the course requirements for the Ph.D.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program mission

The Ph.D. curriculum will provide graduate-level training in both mechanical and nuclear engineering. Graduates of the program will be prepared for research and teaching careers in areas such as energy production, nuclear waste transport, storage and disposal, and the development of new mechanical devices for use in nuclear medicine. A set of required interdisciplinary core courses will train students on the interaction of radiation with engineering materials, radiation in heat and mass transfer as well as mathematical modeling and control of mechanical systems incorporating radioactive elements. Technical electives in both mechanical and nuclear engineering will allow students to pursue in-depth study relevant to their selected research topics. Dissertation topics pursued as directed research credit hours will be devoted to open-ended research projects at the intersection of mechanical and nuclear engineering.

 Advanced technical skills: To produce graduates who possess the necessary advanced analytical and technical skills in engineering and sciences – responds directly to the higher goals of fulfilling the needs of industry for

- effective, productive engineers and of providing economic development for the region, state and nation
- Communication: To produce graduates who possess a facility with both
 written and oral communications emanates from the requirement that
 engineers must be able to interact and share ideas with others in the work
 environment, and at a higher level, be capable of creative self-expression and
 leadership
- 3. Advanced problem-solving: To produce graduates who demonstrate creativity and innovation in solving technological problems – stems from the realization that new knowledge and new solutions to existing problems are necessary to meet the needs of our changing society and to advance the quality of human life

Student learning outcomes

- Apply advanced knowledge of mathematics, science or engineering: Graduates will demonstrate an ability to apply advanced knowledge of mathematics, science or engineering.
- Communicate effectively: Graduates will demonstrate an ability to communicate effectively.
- Identify, formulate and solve engineering problems: Graduates will
 demonstrate an ability to identify, formulate and solve engineering problems.

Degree requirements

In addition to the VCU Graduate School graduation requirements, the Ph.D. degree will require a minimum of 68 credit hours beyond the B.S. degree or a minimum of 36 credit hours beyond the M.S. degree. Students may enter the Ph.D. program with either a B.S. or M.S. degree.

Transfer policy

Transfer courses must be approved by the MNE graduate committee and must fulfill all requirements of the VCU Graduate School as described in the student handbook. For students entering with a B.S. degree, a maximum of nine credit hours of technical electives may be transferred from another VCU program or outside institution and, if not applied previously toward another degree, may be applied toward the Ph.D.

Qualifying examination

Graduate students must pass a written qualifying exam consisting of five sections. Each section will consist of questions taken from the subject matter covered in one of the five core courses. The QE is to be taken after completion of the 15 credit hours of required core courses and, preferably, within 18 months of enrollment. To be eligible to take the QE exam, students must be accepted into the Ph.D. program and have an overall minimum GPA of 3.0 and the minimum GPA for courses within the MNE program must be 3.0 as well. The QE is held during the spring semester of each academic year, normally during the second week of May. In order to apply to take the QE, the student must complete Form MNE 104 by the first day of classes in the spring semester and submit the signed copies to the adviser and graduate program director, who will make the decision to allow the student to take the QE.

A student must pass all five sections of the QE. A course grade of A in one (and only one) of the core courses may be used to pass the corresponding section of the QE exam. Within two weeks of administration, the student will be notified of their results

In the event that a student fails any section of the QE, they may retake the failed section(s) one time only. Failure to pass any section of the QE for the second time will result in dismissal from the Ph.D. program.

Research adviser and graduate dissertation committee

Students will be expected to select a research adviser and dissertation committee within 12 months of enrollment. The dissertation committee will consist of five faculty members, including the primary research adviser and at least two other faculty members from the Department of Mechanical and Nuclear Engineering. This committee reviews and votes to approve or disapprove the student's dissertation research proposal, oral candidacy exam, and the final Ph.D. dissertation and oral defense. This committee also makes the final recommendation to award the Ph.D. degree. All voting members of the committee must be members of the graduate faculty. Additional, nonvoting members may serve on the committee with the approval of the MNE graduate program director.

Oral candidacy examination

Within nine months after passing the qualifying examination the student will submit one copy of an original dissertation research proposal based upon their proposed research project to each member of his or her dissertation committee. The proposal consists of the research topic and proposed research plan. The proposal should include a thorough literature review of the topic and contain information sufficient to judge the feasibility, scope and potential impact of the research. The dissertation committee will then administer an oral candidacy exam based on the material submitted in the dissertation research proposal. The format of the OCE is an oral presentation by the candidate with questions by the dissertation committee members. A favorable decision by the dissertation committee with no more than one negative vote (all members are required to vote) shall be required to pass the OCE. If a student fails the OCE, one re-examination may be given with the consent of the dissertation committee. Failure to pass the second OCE will result in dismissal from the program.

Dissertation defense

No earlier than six months after passing the oral candidacy examination, the student will defend the dissertation in an open forum administered by the dissertation committee. At least two weeks prior to the defense, the candidate will submit a written copy of the dissertation to each committee member and schedule a date for the defense. The defense will be advertised and faculty and student colleagues will be invited to attend. During the defense, the student will present a detailed summary of their research project, which should be the original problem presented and approved during the oral candidacy examination. If a solution of the original problem proves elusive for reasons beyond the student's control, the student may be allowed to redirect the research with permission from the dissertation committee and find an alternate pathway to the solution of a redefined problem. The format of the dissertation defense will be a presentation by the student followed by questions from the dissertation committee and other attendees. After the first round of questions are completed, the non-committee members in attendance will be asked to leave and the dissertation committee members will hold a second round of questions in closed session. After the second round of questions is completed the student will be asked to leave and the committee members will deliberate privately. The problem presented and solved must be of sufficient importance and interest to warrant publication in a peer reviewed journal in the student's area of specialization. A favorable decision by the dissertation committee with no more than one negative vote (all members are required to vote) shall be required to pass the dissertation defense. If a student fails the dissertation defense, one re-examination may be given. Failure to pass the second dissertation defense will result in dismissal from the program.

Students entering with a B.S. degree who are terminated from the Ph.D. program because of a failure to pass the QE, oral candidacy exam or dissertation defense (but not for other reasons such as academic dishonesty) will have the option to continue toward the M.S. in Mechanical and Nuclear Engineering.

Time limit

It is anticipated that students entering with a B.S. will complete the program in four years from the time the student passes the qualifying examination. Students must be continuously enrolled in the program (minimum of one credit hour per semester). All requirements for the Ph.D. degree must be completed within six years of passing the qualifying examination.

It is anticipated that students entering with an M.S. degree will complete the program in three years from the time the student passes the qualifying examination. Students must be continuously enrolled in the program (minimum of 1 credit hour per semester). All requirements for the Ph.D. must be completed within five years of passing the qualifying examination.

Any student may request a one-year extension of the maximum time for extenuating circumstances such as a medical situation. The graduate program committee will review and approve or deny all such requests. The maximum time cannot be extended longer than one year. Students who do not satisfy the degree requirements within the maximum time will be dismissed from the program.

Because of the maximum time limits imposed on students in the Ph.D. program, the program does not accept part-time students.

Preparing Future Faculty Program

Students enrolled in the program will have the option and are strongly encouraged to participate in the Preparing Future Faculty Program. The VCU Graduate School provides graduate students with ongoing opportunities for academic and professional development. The PFFP at VCU offers a series of short courses and professional development opportunities for graduate students interested in

pursuing careers in higher education. The series is modeled on the national PFFP created by the Association of American Colleges and Universities. PFFP courses introduce graduate students to the roles and responsibilities of higher education; address teaching, learning and technology issues in the college classroom; and incorporate material on the academic job search and continued professional development. For those students who complete all course requirements, the capstone course is an internship/externship experience during which the student is mentored by a senior faculty member. The program offers access to resources and activities and service-learning experiences while providing networking opportunities with students and faculty from a wide range of disciplines as well as discipline-specific areas of study. Since most courses are one or two credit hours, students are able to add them easily into their academic program schedules.

Curriculum requirements

Requirements for students entering with a B.S. degree

Courses	Credit hours
Core courses	15
EGMN 503 Mechanical and Nuclear Engineering Continuum Mechanics*	3
EGMN 504 Mechanical and Nuclear Engineering Analysis*	3
EGMN 603 Mechanical and Nuclear Engineering Dynamic Systems	3
EGMN 604 Mechanical and Nuclear Engineering Materials	3
EGRN 610 Topics in Nuclear Engineering**	3

*Students entering the Ph.D. program with a B.S. in Mechanical Engineering from VCU who have taken EGMN 503 or EGMN 504 as undergraduate technical electives must take replacement courses approved by the MNE graduate program director. **Not required for students entering with a B.S. in Nuclear Engineering. A replacement course approved by the MNE graduate program director must be taken and will count toward the required 15 credit hours of core courses.

Technical elective component

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Mechanical and nuclear engineering students, with the aid of their dissertation adviser and dissertation committee, will select technical elective courses with the following requirements:

At least six credit hours from courses under the mechanical engineering list

At least three credit hours from courses under the nuclear engineering list

Remaining nine credit hours selected from either list or other appropriate graduate-level courses approved by the dissertation adviser

Mechanical engineering courses

ENGR 565 Design Optimization	3
ENGR 630 Technology, Security and Preparedness	3
EGRM 510 Solid Mechanics and Materials Behavior	3
EGRM 515 Vibrations	3
EGRM 525 Feedback Control	3
EGRM 545 Energy Conversion Systems	3
EGRM 551 Experimental Methods for Engineers	3
EGRM 555 Smart Materials	3
EGRM 561 Advanced Fluid Mechanics	3
EGRM 568 Robot Manipulators	3
EGRM 570 Introduction to Computational Fluid Dynamics	3
EGRM 580 Flow Control	3
EGRM 609 Advanced Characterization of Materials	3
EGRM 630 Advanced Biofluid Mechanics	3
EGRM 661 Computational Fluid Dynamics	3
EGRM 662 Advanced Turbomachinery Systems	3

ENGR 591 Special Topics in Engineering 3 Nuclear engineering courses EGRM 602 Convective Heat Transfer 3 EGRN 510 Probabilistic Risk Assessment 3 EGRN 530 System Analysis of the Nuclear Fuel Cycle 3 EGRN 620 Reactor Theory 3 EGRN 630 Nuclear Power Plants 3 EGRN 640 Nuclear Safety 3 EGRN 650 Nuclear Radiation and Shielding 3 Directed research component 27 This component consists of dissertation research directed toward completion of Ph.D. degree requirements under the direction of a dissertation adviser and dissertation committee. Students can register for 1 to 15 credit hours of directed research in mechanical and nuclear engineering. EGMN 697 Directed Research in Mechanical and Nuclear

Engineering

Seminar component 8 EGMN 690 Mechanical and Nuclear Engineering Seminar Total graduate credit hours required (minimum) 68

Notes:

- 1. A total of 21 credit hours from the core courses, technical electives or seminar (not including directed research credit hours) must be at the 600 level or higher.
- In certain cases, independent study courses (ENGR 691) are offered by individual faculty members. Up to three credit hours of ENGR 691 may be taken as a technical elective course.

Requirements for students entering with an M.S. degree

Courses	Credit hours
Core courses	9
EGMN 603 Mechanical and Nuclear Engineering Dynamic Systems*	3
EGMN 604 Mechanical and Nuclear Engineering Materials*	3
EGRN 610 Topics in Nuclear Engineering*	3
*Not required for students entering with a B.S. or M.S. in Nuclear Engineering or Mechanical and Nuclear Engineering. A replacement course approved by the MNE graduate program director must be taken and will count toward the required nine credit hours of core courses.	
Directed research component	24
This component consists or dissertation research directed toward completion of Ph.D. degree requirements under the direction of a dissertation adviser and dissertation committee.	
EGMN 697 Directed Research in Mechanical and Nuclear Engineering	
Seminar component EGMN 690 Mechanical and Nuclear Engineering Seminar	3

A total of nine credit hours of core courses and seminar but not including directed research credit hours must be at the 600 level or higher.

Total graduate credit hours required (minimum)

2. Students entering with an M.S. will follow the same curriculum as the students entering with a B.S. with the above noted reduction in required credit hours.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student handbook is available on the School of Engineering website.

Mechanical and Nuclear Engineering, Master of Science (M.S.)

Graduate program director

Karla M. Mossi, Ph.D. Associate professor

kmmossi@vcu.edu

(804) 827-5275

Additional contact

Gary C. Tepper, Ph.D.

Professor and chair, Department of Mechanical and Nuclear Engineering gctepper@vcu.edu

(804) 827-7030

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Program website: mechanical-and-nuclear.egr.vcu.edu/academics/graduate

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Mechanical and Nuclear Engineering, Doctor of Philosophy (Ph.D.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Mechanical and Nuclear Engineering, Master of Science (M.S.)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
M.S.	Fall (preferred)	Jun 1 (Feb 15 for financial assistance)	GRE – General
		Nov 15	International students require TOEFL
	Spring		

In addition to the general admission requirements of the VCU Graduate School and the School of Engineering, applicants to the mechanical and nuclear engineering degree must have a B.S. degree in mechanical engineering, nuclear engineering or a closely related discipline.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

> General academic regulations for all graduate students in all graduate programs at VCU



Program mission

The mission of the M.S. in Mechanical and Nuclear Engineering degree is to provide graduate students with learning opportunities for acquiring a broad foundation of engineering knowledge including business and manufacturing aspects; an in-depth research experience at the frontiers of engineering; and skills for lifelong learning and professional development. Graduates of this program will pursue careers in business/industry and government, or will pursue doctoral degrees.

- 1. Advanced technical skills: To produce graduates who possess the necessary advanced analytical and technical skills in engineering and sciences responds directly to the higher goals of fulfilling the needs of industry for effective, productive engineers and of providing economic development for the region, state and nation
- Communication: To produce graduates who possess a facility with both written and oral communications – emanates from the requirement that engineers must be able to interact and share ideas with others in the work environment, and at a higher level, be capable of creative self-expression and leadership
- Advanced problem-solving: To produce graduates who demonstrate creativity and innovation in solving technological problems – stems from the realization that new knowledge and new solutions to existing problems are necessary to meet the needs of our changing society and to advance the quality of human life

Student learning outcomes

- 1. Apply advanced knowledge of mathematics, science or engineering: Graduates will demonstrate an ability to apply advanced knowledge of mathematics, science or engineering.
- Communicate effectively: Graduates will demonstrate an ability to communicate effectively.

3. Identify, formulate and solve engineering problems: Graduates will demonstrate an ability to identify, formulate and solve engineering problems.

Degree requirements

In addition to the VCU Graduate School graduation requirements, students must meet the following requirements.

The Master of Science in Mechanical and Nuclear Engineering program utilizes the faculty and research facilities of the Department of Mechanical and Nuclear Engineering to expose students to advanced and emerging technologies in mechanical and nuclear engineering. Research thrusts in the department include but are not limited to smart materials, micro/nanotechnology, energy conversion systems, sensors, aerosol science, nuclear engineering, fluid mechanics, medical devices, robotics and biomechanics.

The M.S. degree program offers a thesis or non-thesis option and can be tailored to meet the individual student's academic goals and research interests. Eighteen to 24 months of study usually are necessary to complete the requirements for the thesisoption. The non-thesis option generally requires 12 months of full-time study or up to four years of part-time study. A time limit of six calendar years, beginning at the time of first registration, is placed on work to be credited toward the master's degree. Generally, a maximum of six credit hours of approved graduate course work required for a master's degree may be transferred from another program at VCU or outside institution and applied toward the degree.

The following are the minimum credit hour requirements for the proposed graduate degree program options:

M.S. thesis option – minimum 30 credit hours including nine credit hours in core courses, 15 credit hours in technical electives (engineering, science or related areas) and six credit hours in directed research EGMN 697

M.S. non-thesis option – minimum 30 credit hours including 15 credit hours in concentration course work (EGRM or EGRN) and 15 credit hours in technical electives (engineering, science or approved courses)

The mechanical and nuclear engineering M.S. degree program contains three curricular components:

- **Core component:** This component consists of three required core courses that provide the foundation of the M.S. curriculum. See below for specific course requirements.
- **Technical elective component:** This component allows the student to take courses in either engineering, science or other areas with approval of the student's adviser and graduate program director.
- **Directed research component:** This component emphasizes research directed toward completion of M.S. degree requirements under the direction of an adviser and thesis committee.

Depending on the option pursued, students will have to take courses from two or all three of the curricular components. Students should select their concentration component courses based upon their concentration areas. Selecting one concentration area over another does not preclude a student from choosing courses from other areas. In fact, students will be encouraged to take courses from both EGRM and EGRN areas. Sample curricula follow.

Curriculum requirements

Courses	Credit hours
Thesis option	
Core component	9
Technical electives – engineering, science or related course work	15
Directed research	6
Total graduate credit hours required (minimum)	30
Non-thesis option	
Core component	9
Technical electives – engineering, science or related course work	21

Total graduate credit hours required (minimum)

30

Core requirements

All full-time thesis master's students must register for and attend EGMN 690 Mechanical and Nuclear Engineering Seminar each semester. Part-time and non-thesis students are not required to register for the seminar, but they are encouraged to attend. All thesis students are required to give a research presentation as part of the seminar series at least once prior to graduation; non-thesis students must give a project presentation prior to graduation, based on an extension of work completed in a project-based course (see degree requirements below), as part of the seminar series. Note that EGMN 690 cannot be used to replace courses or research hours.

Courses	Credit hour
Core courses, seminar and directed research	
EGMN 503 Mechanical and Nuclear Engineering Continuum Mechanics	3
EGMN 504 Mechanical and Nuclear Engineering Continuum Analysis	3
EGMN 690 Mechanical and Nuclear Engineering Seminar	1
EGMN 697 Directed Research in Mechanical and Nuclear Engineering	1-15
EGRN 610 Topics in Nuclear Engineering	3
Technical elective courses	
EGMN 603 Mechanical and Nuclear Engineering Dynamic Systems	3
EGMN 604 Mechanical and Nuclear Engineering Materials	3
EGRM 510 Solid Mechanics and Materials Behavior	3
EGRM 515 Vibrations	3
EGRM 525 Feedback Control	3
EGRM 551 Experimental Methods for Engineers	3
EGRM 555 Smart Materials	3
EGRM 561 Advanced Fluid Mechanics	3
EGRM 568 Robot Manipulators	3
EGRM 570 Introduction to Computational Fluid Dynamics	3
EGRM 580 Flow Control	3
EGRM 609 Advanced Characterization of Materials	3
EGRM 630 Advanced Biofluid Mechanics	3
EGRM 661 Computational Fluid Dynamics	3
EGRM 662 Advanced Turbomachinery Systems	3
EGRN 510 Probabilistic Risk Assessment	3
EGRN 530 System Analysis of the Nuclear Fuel Cycle	3
EGRN 620 Reactor Theory	3
EGRN 630 Nuclear Power Plants	3
EGRN 640 Nuclear Safety	3
EGRN 650 Nuclear Radiation and Shielding	3
ENGR 565 Design Optimization	3
ENGR 570 Effective Technical Writing	3
ENGR 591 Special Topics in Engineering	1-4
ENGR 630 Technology, Security and Preparedness	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student handbook is available on the School of Engineering website.



2014-15 Graduate and Professional Programs Bulletin

L. Douglas Wilder School of Government and Public Affairs

The L. Douglas Wilder School of Government and Public Affairs is a creative, interdisciplinary grouping of programs in the social sciences and professional arenas that provides students with the knowledge, skills and experience necessary for success in public service.

The Wilder School brings together faculty from multiple disciplines that share a common interest in public affairs. The faculty includes individuals with strong research and analytical skills and with substantive expertise in such fields as criminal justice, economics, homeland security, public administration, urban planning and community development. These faculty members are committed to producing cutting-edge research and public service that can bridge the gap between theory and practice and to providing high quality, innovative and nationally competitive degree programs for our students.

To achieve this mission, the Wilder School actively fosters and promotes a wide range of endeavors, including the establishment of interdisciplinary undergraduate and graduate programs that develop close ties with other related university programs. The Wilder School is an intellectually exciting place committed to having a genuine impact on public policy and providing an intellectually stimulating education for future public affairs professionals who share in our commitment.

Administration

923 West Franklin Street P.O. Box 842028 Richmond, Virginia 23284-2028 (804) 828-2292 Fax: (804) 827-1275 www.wilder.vcu.edu

Niraj Verma

Professor and Dean

Sarah Jane Brubaker

Associate Professor and Associate Dean

Franklin Wallace

Associate Director for Operations

John S. Mahoney

Associate Professor and Undergraduate Program Director

Richard Huff

Assistant Professor and Graduate Program Director

Accreditation

Public administration (master's degree) National Association of Schools of Public Affairs and Administration

Urban and regional planning (master's degree) Planning Accreditation Board

Program offerings

The school offers a variety of educational opportunities. Students may pursue three undergraduate programs and an additional three minors. Graduate programs provide options for full-time students and for practicing professionals interested in enhancing their skills or engaging in graduate-level work on a part-time basis. Current graduate offerings include nationally recognized master's programs and 10 graduate-level certificates, as well as a doctoral degree program administered by the Center for Public Policy. Wilder School programs include:

Baccalaureate degrees

Bachelor of Science in Criminal Justice

Bachelor of Arts in Homeland Security and Emergency Preparedness Bachelor of Science in Urban and Regional Studies

Minors

Criminal justice

Homeland security and emergency preparedness Urban and regional studies

Post-baccalaureate graduate certificates

Certificate in Criminal Justice

Certificate in Geographic Information Systems Certificate in Historic Preservation Planning

Certificate in Homeland Security and Emergency Preparedness

Certificate in Nonprofit Management

Certificate in Planning Information Systems

Certificate in Public Management

Certificate in Public Safety

Certificate in Transportation Planning and Analytics

Certificate in Urban Revitalization

Master's degrees

Master of Arts in Homeland Security and Emergency Preparedness

Master of Public Administration

Master of Science in Criminal Justice

Master of Urban and Regional Planning

Doctoral degree

Ph.D. in Public Policy and Administration (through the Center for Public Policy)

The school also offers two dual degree programs with the University of Richmond's T.C. Williams Law School. Through these programs students can simultaneously obtain a law degree (J.D.) and either the Master of Public Administration or the Master of Urban and Regional Planning.

Service-learning and internship opportunities

Diana Cutchin

Director

The educational experience at the L. Douglas Wilder School of Government and Public Affairs extends far beyond the classroom. Many of our students take advantage of service-learning and internship opportunities, gaining valuable work experience and enhancing their resume as they contribute in meaningful ways to governmental departments and agencies, legislative offices, nonprofit institutions, community initiatives, and businesses throughout Richmond.

Exceptionally qualified graduate students in the criminal justice, homeland security and emergency preparedness, sociology, public administration, and urban and regional planning programs are selected to be Wilder Graduate Scholars who undertake yearlong placements in which they benefit from professional work experience and financial support.

At the Wilder School, service is a tradition that is supported and cultivated by a faculty that reflects a tremendous commitment to community-based research. Each semester, VCU faculty offer a diverse selection of credit-bearing service-learning courses that provide students with the privilege of developing hands-on experience within their academic fields while engaging in meaningful projects that benefit local communities.

Guidelines for internships are available on the Wilder School website at http://www.wilder.vcu.edu/service/intern/guidelines.html.

Graduate information

Admission

Admission to programs of the L. Douglas Wilder School of Government and Public Affairs is available to qualified students on a rolling admissions basis. Since the demand for admission to some programs is high and space availability is limited, students are encouraged to apply well in advance of their proposed admission dates.

As outlined below, admission requirements vary by academic program. No application packet will be considered by the relevant program admissions committee until all the required materials have been submitted by the applicant.

Application forms and instructions for applying to all graduate programs are available on the Graduate School Web site at www.graduate.vcu.edu.

Admission to a master's program from the certificate programs

The Graduate Certificate in Public Management and the Graduate Certificate in Nonprofit Management are designed for persons in professional positions who require a limited number of courses in contemporary management theory and skills. However, if a student later decides to pursue the M.P.A. degree, successfully completed certificate courses may be applied toward the degree. Successful completion of either certificate does not guarantee admission into the M.P.A. degree program.

The courses in the Postbaccalaureate Certificate in Criminal Justice program are the same as the master's courses and, with grades of "B" or better and upon

acceptance into the master's degree program, are fully transferable to the Master of Science in Criminal Justice program.

All courses in the Certificate in Urban Revitalization may be applied to meet the requirement of the Master of Urban and Regional Planning degree. However, successful completion of the certificate program does not guarantee admission into the M.U.R.P. Degree program.

Provisional admission

- In rare cases, applicants who do not meet the requirements for full admission
 may be accepted provisionally upon recommendation of the program's
 admissions committee. The conditions for earning full admission are stated in
 the provisional acceptance letter sent by the dean of the Graduate School.
 Conditions usually include the requirement that the student complete the first
 nine hours of departmental graduate courses with a grade of "B" or better in
 each course.
- Provisional admission does not constitute a waiver of the requirement to submit a GRE or other standardized test score.

Continuous enrollment requirements and expectations

To remain in good standing, students must maintain continuous registration for each fall and spring semester (except for approved leaves of absence) until they have completed all requirements. Students who fail to register for two consecutive semesters (summer sessions included) will be dropped automatically from the program and must reapply for admission in order to continue. Exceptions to this policy will be made on an individual basis by petition. Students who reapply after having been dropped for failure to register continuously will be evaluated under the bulletin requirements in effect at the time of readmittance.

A minimum GPA of 3.0 on a 4.0 scale must be maintained. Compliance with other university regulations also is required.

Part-time students

Since the school schedules many of its courses in the late afternoon or evening, its programs accommodate both full- and part-time students. Students also may take advantage of courses offered in the summer. Thus it is possible for a part-time student taking six credit hours per semester to finish the master's degree in four years or less.

Nondegree-seeking students

Nondegree-seeking students must have an undergraduate degree from an accredited institution and the written approval of the instructor prior to registering for any graduate-level course. Nondegree-seeking students can take no more than six credit hours without authorization from the appropriate program coordinator.

Financial aid information

Information and application forms for financial aid may be secured from the VCU Office of Financial Aid, Harris Hall, 1015 Floyd Ave., First Floor, P.O. Box 843026, Richmond, VA 23284-3026.

The L. Douglas Wilder School of Government and Public Affairs also offers a limited amount of financial assistance. Individuals interested in such assistance are urged to apply by March 30. Financial assistance available through the school includes:

Graduate teaching assistant positions – Duties involve helping with the instruction of courses. The level of support varies according to the work level, financial need and scholarship.

Research assistant positions – The stipend and number of positions depend upon the level of sponsored research carried out by the school each year.

Tuition fellowships – There are a limited number of tuition fellowships for full-time students within the three master's degree programs.

T. Edward Temple Memorial Scholarship Award – This award of approximately \$500 per year is given to an outstanding graduate student in the Master of Urban and Regional Planning program each year.

The Senator Edward E. Willey Scholarship, the Virginia City Management Association/University Dr. T. Edward Temple Scholarship and the Leigh E. Grosenick Scholarship – These

scholarships are available to outstanding students in the Master of Public Administration program. Preference for these three scholarships is given to those who plan public careers in Virginia.

Internships – Paid, on-the-job internships are widely available in the Richmond area and elsewhere and are encouraged. VCU graduates also have been successful in obtaining presidential management internships in the federal government, state-government professional positions and local government positions.

Transfer credit

With the consent of the admission committee or program coordinator, a maximum of six semester hours of appropriate graduate credit may be transferred and applied toward the Master of Science in Criminal Justice, the Master of Public Administration or the Master of Urban and Regional Planning. These hours will not have been credited toward another degree.

School wide master's-level requirements

In addition to the program specific requirements of the Master of Public Administration, the Master of Science in Criminal Justice, and the Master of Urban and Regional Planning as outlined elsewhere in this bulletin, the Wilder School requires all master's-level graduate degree-seeking students to acquire competence in four broad areas:

- 1. Research methods
- 2. Planning and/or policy analysis
- 3. Public administration
- Ethics

Competence can be demonstrated by completion of the following:

Research methods

GVPA/PADM/URSP/CRJS 623 Research Methods for Government and Public Affairs

Planning/policy analysis

GVPA/URSP 632 Planning Theory and Processes

GVPA/PADM 625 Public Policy Analysis

Public administration

GVPA/PADM 601 Principles of Public Administration

Ethics

GVPA/PADM 683 Administrative Ethics

OI

A program specific course through which ethical issues are imbedded and discussed within a public sector context. Such courses would include: CRJS 550, PADM 661, PADM 689, URSP 632 and URSP 635.

Selection of courses to meet these competency requirements will be made by the student in consultation with his/her academic adviser. While each graduate of the Wilder School must demonstrate competence in each of the areas outlined above, substitutions for the specific courses may be made with the written approval of the appropriate graduate program coordinator.

Wilder School courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

The L. Douglas Wilder School of Government and Public Affairs offers courses in the following areas:

Use this link to see criminal justice (CRJS) courses.

Use this link to see government and public affairs (GVPA) courses.

Use this link to see homeland security and emergency preparedness (HSEP) courses.

Use this link to see public administration (PADM) courses.

Use this link to see public policy and administration (PPAD) courses.

Use this link to see urban studies and planning (URSP) courses.

Criminal Justice, Certificate in (Post-baccalaureate graduate certificate)

Graduate program director

Jill A. Gordon, Ph.D. Program chair, Criminal Justice jagordon@vcu.edu (804) 827-0901

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School rrhuff@vcu.edu (804) 828-6837

(804) 828-6837

Program website: wilder.vcu.edu/academic/criminal/certificate.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Criminal Justice, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Criminal Justice, Certificate in (Post-baccalaureate graduate certificate)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Certificate	Fall	Apr 1 (Mar 1 for financial aid)	
	Spring	Oct 1	

The Post-baccalaureate Certificate in Criminal Justice program offers an abbreviated graduate-level course sequence of 15 credit hours for individuals with an academic and/or professional background in criminal justice. Applicants must meet all general admission requirements of the VCU Graduate School.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The Certificate in Criminal Justice is a post-baccalaureate graduate program designed to help facilitate career advancement in the criminal justice and/or criminology field. The program seeks to develop critical-thinking skills among the students through the use of current criminal justice and criminological topics, reports and research findings.

This certificate program offers specialization for individuals interested or involved in law enforcement, corrections, juvenile justice or the courts. It combines survey and theory courses with research, management and policy courses on the justice system. The courses in the certificate program are the same as the master's

courses. With minimum grades of B and upon acceptance into the master's degree program, these courses are fully transferable to the Master of Science (M.S.) in Criminal Justice degree program.

Student learning outcomes

- Students will identify concepts and issues that are relevant and/or appropriate for the research or content area.
- Students will demonstrate logical connections in concepts, facts and information identified in the literature.
- 3. Students will be able to solve a problem, write a research paper or make a line of argument on a particular criminal justice topic.
- 4. Students will be able to exemplify the trivium of learning.

Degree requirements

In addition to general VCU Graduate School graduation requirements, five courses are required for the certificate, as specified in the chart list that follows. To receive the certificate, the student must achieve a B average in the five courses, earn no more than one C grade and complete the 15-hour certificate program within three years.

Curriculum requirements

Courses	Credit hours
Required courses	6
CRJS 501 Principles of Criminal Justice	3
CRJS/GVPA/PADM/URSP 623 Research Methods for Government and Public Affairs	3
Electives	9
Select three courses from the following:	
CRJS 550 Professional Ethics and Liability	3
CRJS 616 Justice Policy and Administration	3
CRJS 641 Jurisprudence	3
Other graduate-level elective	3
(only three credit hours of internship are applicable to the certif	icate)

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Criminal Justice, Master of Science (M.S.)

Graduate program director

Jill A. Gordon, Ph.D. Program chair, Criminal Justice jagordon@vcu.edu (804) 827-0901

Additional contact

Richard F. Huff, Ph.D. Director of graduate studies, Wilder School rrhuff@vcu.edu (804) 828-6837

Program website: wilder.vcu.edu/academic/criminal

Refer to the program search feature of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Criminal Justice, Certificate in (Post-baccalaureate graduate certificate)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Criminal Justice, Master of Science (M.S.)			
Degree: M.S.	Semester(s) of entry: Fall	Deadline dates: Apr 1 (Mar 1 for financial aid)	Test requirements: GRE, LSAT or GMAT
	Spring	Oct 1	

Special requirements:

These deadlines are designed to allow sufficient time for application review and admission processing. Applications may be submitted after the deadline; however, there is no guarantee of sufficient time for processing. Any application submitted too late for current semester processing will be considered for the following semester. Please contact the program chair with specific application questions.

In addition to the general admission requirements of the VCU Graduate School, admission to the Master of Science in Criminal Justice also will be based on:

- 1. An undergraduate GPA that exceeds 2.7 overall
- A satisfactory score on the graduate standardized test (GRE, LSAT or GMAT)
- 3. Previous evidence of ability to perform graduate-level work (where applicable)
- 4. Professional experience in criminal justice (where applicable)

The courses in the post-baccalaureate graduate Certificate in Criminal Justice program are the same as the master's courses. With grades B or better and, upon acceptance into the master's degree program, courses from the certificate program are fully transferable to the Master of Science in Criminal Justice degree program.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The M.S. degree program in criminal justice assists in broadening and refining the understanding of criminal justice and criminological issues to facilitate career success and advancement. The goal of the program is to develop critical-thinking skills among the students through the use of current criminal justice and criminological topics, reports and research findings.

Student learning outcomes

- Students will identify concepts and issues that are relevant and/or appropriate for the research or content area.
- Students will demonstrate logical connections in concepts, facts and information identified in the literature.
- 3. Students will be able to solve a problem, write a research paper or make a line of argument on a particular criminal justice topic.
- 4. Students will be able to exemplify the trivium of learning.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, the Master of Science in Criminal Justice requires a minimum of 36 graduate credit hours of course work, with a minimum overall grade-point average of 3.0. Students who do not have at least one year of professional-level experience are encouraged to take a three-credit-hour internship as part of the 36 semester hours.

To complete the M.S. curriculum, students must submit a portfolio of their work before they graduate. Contact the program director for format and submission details

A maximum of nine semester hours of graduate credit from an accredited institution may be transferred and applied toward the master's degree. All transfer requests require the approval of the graduate program coordinator and the Graduate School and may not have been counted toward another degree.

Curriculum requirements

Curriculum requirements	
Courses	Credit hours
Required courses	18
CRJS 501 Principles of Criminal Justice	3
CRJS 550 Professional Ethics and Liability	3
CRJS 616 Justice Policy and Administration	3
CRJS 620 Seminar in Criminology	3
CRJS/GVPA/PADM/URSP 623 Research Methods for Government and Public Affairs	3
CRJS 641 Jurisprudence	3
Electives	18
Select six courses from the following:	
CRJS 591 Topic Seminar	3
CRJS 612 Criminal Justice Politics and Planning	3
CRJS 622 Comparative Criminal Justice Systems	3
CRJS 631 Criminal Justice Management and Leadership	3
CRJS/FRSC 680 Forensic Psychiatry	3
CRJS 693 Internship (3 credits maximum; see Wilder School website for listing)	3
FRSC 670 Forensic Evidence and Criminal Procedure	3
HSEP 501 Institutional Challenges of Security Preparedness	3
HSEP 502 Survey of Terrorism	3
HSEP 603 Risk Assessment	3
PADM/GVPA 601 Principles of Public Administration	3

PADM/GVPA 625 Public Policy Analysis	3
SOCY 510 Domestic and Sexual Violence in Social Context	3
SOCY 631 Battered Women in the Criminal Justice System	3
SOCY 656 Social Network Analysis	3

Other course(s) may be selected with permission of the criminal justice graduate director.

36

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Gender Violence Intervention, Certificate in (Postbaccalaureate graduate certificate)

Graduate program director

Sarah Jane Brubaker, Ph.D. Associate dean, Wilder School sbrubaker@vcu.edu (804) 827-2400

Additional contact

Richard F. Huff, Ph.D. Director of graduate studies, Wilder School rrhuff@vcu.edu (804) 828-6837

Program website: wilder.vcu.edu/academic/certificate/intervention.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Social Work, Master of (M.S.W.)/Gender Violence Intervention, Certificate in (Post-baccalaureate graduate certificate) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Gender Violence Intervention, Certificate in (Post-baccalaureate graduate certificate)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Certificate	Fall	Apr 1 (Mar 1 for financial aid)	
	Spring	Oct 1	

Applicants must meet all general admission requirements of the VCU Graduate School.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission

The graduate Certificate in Gender Violence Intervention is designed to prepare individuals for positions related to understanding, studying, responding to and preventing sexual and domestic violence in a variety of communities and settings. It provides specialized study in gender violence and can be earned on its own, or in conjunction with another graduate degree in the Wilder School of Government and Public Affairs or the School of Social Work.

Program goals

- 1. The program will guide students in the development of strong academic understanding related to gender violence intervention.
- The program will guide students in the development of skills in applying academic concepts to the practice of gender violence intervention.

Student learning outcomes

- 1. Academic understanding
 - Students will have knowledge of common types and theoretical perspectives of gender violence.
 - b. Students will have knowledge of gender violence policies.
- 3. Skills
 - Students will have the ability to demonstrate methods of applying concepts to problems, practice and policy.
 - Students will develop an understanding of professional behaviors and boundaries while working in GVI settings and with diverse populations.

Degree requirements

In addition to general VCU Graduate School graduation requirements, a total of 18 graduate credit hours is required to earn the Certificate in Gender Violence Intervention. Four courses (12 credit hours) are required. In addition, an internship course (3 credit hours), which offers the opportunity for involvement in all phases

of work in this field, is required. For the remaining 3 credit hours, students may choose one of several elective options.

Curriculum requirements

Courses	Credit hours
Required courses	12
GVPA 623 Research Methods for Government and Public Affairs	3
PADM 650 Principles of Nonprofit Management	3
SLWK 761 Interpersonal Violence	
SOCY 635 Theorizing Gender Violence	3
Required internship	3
GVPA 693 Internship	3
Elective	3
Select one from the following:	
SOCY 631 Battered Women in the Criminal Justice System	3
SOCY 633 Application of the Policy Process to Issues of	3
Violence	3
SOCY 660 Seminar in the Sociology of Women	3
Any graduate-level SOCY seminar course	3
Total graduate credit hours required (minimum)	18

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Social Work, Master of (M.S.W.)/Gender Violence Intervention, Certificate in (Post-baccalaureate graduate certificate) [combined]

Graduate program director Melissa L. Abell, Ph.D. M.S.W. program director mlabell@vcu.edu (804) 828-2007

Program website: socialwork.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Gender Violence Intervention, Certificate in (Post-baccalaureate graduate certificate)

Public Health, Master of (M.P.H.)/Social Work, Master of (M.S.W.) [combined] Social Work, Doctor of Philosophy (Ph.D.)

Social Work, Master of (M.S.W.) with a concentration in clinical

Social Work, Master of (M.S.W.) with a concentration in social work

administration, planning and policy practice

Social Work, Master of (M.S.W.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/school social work practice certification [combined]

Social Work, Master of (M.S.W.)/Juris Doctor (J.D.) with the University of Richmond [combined]

Social Work, Master of (M.S.W.)/Divinity, Master of (M.Div.) from the Baptist Theological Seminary at the University of Richmond or the Samuel DeWitt Proctor School of Theology at Virginia Union University [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Social Work, Master of (M.S.W.)/Gender Violence Intervention, Certificate in (Post-baccalaureate graduate certificate) [combined]

Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.S.W. and	entry:		
	Fall	Jul 15	
Post-baccalaureate			
graduate certificate	Spring	Nov 15	

The combined Master of Social Work and Certificate in Gender Violence Intervention program is a collaborative effort among the L. Douglas Wilder School of Public Affairs, the School of Social Work and community advocates working in the area of sexual and domestic violence. The certificate requires a total of 18 credit hours comprising five required courses and one elective.

To enroll in the Certificate in Gender Violence Intervention simultaneously with the M.S.W., students must complete a graduate application for the certificate program and pay the required fee to the Graduate Admissions Office; however, no supporting information is required for students who are already enrolled in good standing in the M.S.W. program.

Applicants will need to complete an online admission application and select from the drop down menu "GVI Certificate." Applicants then pay the application fee and attach an essay on why they wish to be in the program. Students should also indicate on the right-hand side of the admission application that they are currently in the M.S.W. program, which will alert the admissions office that the application can be sent directly to the program chair for an admissions decision.

Please arrange for references and transcripts to be forwarded to the Wilder School graduate studies office from the School of Social Work and they will be added to the admission application. Students should indicate in the "Comments" section of the application form that they are already enrolled in the M.S.W. program.

Additional information may be obtained from Virginia Commonwealth University, School of Social Work, P.O. Box 842027, Richmond, VA 23284-2027, Attention: Elizabeth Cramer, Ph.D., [ecramer@vcu.edu; (804) 828-9027], Certificate in Gender Violence Intervention Adviser. Detailed information about the Certificate in Gender Violence Intervention is available from Sarah Jane Brubaker, Ph.D., associate dean of the Wilder School [sbrubaker@vcu.edu; (804) 827-2400]. Certificate courses can be completed after M.S.W. degree requirements have been completed as long as there is continuous enrollment. All M.S.W. students interested in the certificate should check the course schedule for changes and other course offerings.

Refer to the program search function for specific admission requirements, application deadlines, program goals, student learning outcomes, degree requirements and graduation requirements for the M.S.W. and Certificate in Gender Violence Intervention programs.

Curriculum requirements

Courses	Credit hours
Required courses	15
GVPA 623 Research Methods for Government and Public Affairs*	3
GVPA 693 Internship**	3
PADM 650 Principles of Nonprofit Management***	3
SLWK 761 Interpersonal Violence	3
SOCY 635 Theorizing Gender Violence	3
Elective	3

Total graduate credit hours required (minimum) for the Certificate in Gender Violence Intervention for students in the M.S.W. program

Through a cooperative arrangement with the Wilder School, M.S.W. students may simultaneously earn this graduate certificate by completing two required courses: SOCY 635 and SLWK 761.

Notes

*GVPA 623 Research Methods for Government and Public Affairs: satisfied by SLWK 706-707 or SLWK 714-715 [clinical or social work planning, administrative and policy practice research course (3 credit hours)]

**GVPA 693 Internship: satisfied by SLWK 693-694, 695; or SLWK 793-794, 795 [a social work field practicum in an agency providing sexual or domestic violence services (3 credit hours)]

***PADM 650 Principles of Nonprofit Management: satisfied by SLWK 602-606 Social Work Policy, Planning and Organizational Practice I and II (3 credit hours)

Course schedule

SOCY 635 will be offered every fall; SLWK 761 will be offered every spring. Both courses will be offered on Tuesday from 4-6:40.

Field placements

Once students are admitted and enrolled in the certificate program, they should consult the certificate adviser when they choose their field placements to ensure that at least one placement is conducted in a setting that addresses gender violence

Geographic Information Systems, Certificate in (Postbaccalaureate graduate certificate)

Graduate program director

I-Shian (Ivan) Suen, Ph.D. Associate professor and program chair isuen@vcu.edu

(804) 828-2721

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School

rrhuff@vcu.edu

(804) 828-6837

Program website: wilder.vcu.edu/academic/certificate/geographic.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Geographic Info certificate)	ormation Systems, Cer	tificate in (Post-baccala	ureate graduate
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Certificate	Fall	Apr 1 (Mar 1 for	_
		financial aid)	
	Spring	Oct 1	

Special requirements:

Only applicants with prior GIS training, course work or work experience are considered for spring admissions. Other applicants should apply for fall admission due to course sequencing and prerequisites.

These deadlines are designed to allow sufficient time for application review and admission processing. Applications may be submitted after the deadline; however, there is no guarantee of sufficient time for processing. Any application submitted too late for current semester processing will be considered for the following semester.

In addition to the general admission requirements of the VCU Graduate School, the prerequisites and general criteria of eligibility for admission to the GIS certificate program include:

- 1. Completion of an official application form
- 2. Three letters of reference
- 3. Letter of intent describing interest in applying for the Certificate in Geographic Information Systems
- 4. An official transcript showing successful completion of baccalaureate degree or its equivalent from an accredited college or university with a minimum grade point average of 2.7 (out of 4.0) in the last 60 hours of undergraduate study

At any time, students in the GIS certificate program may apply for admission into the Master of Urban and Regional Planning, the Master of Public Administration or the Master of Science in Criminal Justice degree programs. If accepted into a master's program, students may then transfer credits earned in the GIS certificate program toward partial fulfillment of the master's degree.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The graduate Certificate in Geographic Information Systems emphasizes the core functions and applications of GIS. It provides specialized training in the operations and techniques related to the creation, analysis, modeling, visualization, interpretation and management of geographic information.

The certificate program is designed to meet the educational needs of both traditional and nontraditional students. The GIS program prepares traditional students to utilize GIS in their major areas of study. Nontraditional students can

also take advantage of the certificate program to learn and/or upgrade GIS knowledge and skills that are applicable and important to their professions.

Student learning outcomes

- Students should display evidence of having developed a multidisciplinary understanding of urban life.
- Students will demonstrate an understanding of, and a willingness to act in accordance with, the ethics and values of the professional.

Degree requirements

The Certificate in Geographic Information Systems can be completed in one academic year. In addition to general VCU Graduate School graduation requirements, students must complete 12 graduate credit hours of GIS course work that includes two required and two elective courses with a minimum grade-point average of 3.0 (out of 4.0).

Curriculum requirements

Courses	Credit hours
Required courses	6
URSP 621 Introduction to Geographic Information Systems (offered in fall semester)	3
URSP 625 Spatial Database Management and GIS Modeling (offered in spring semester)	3
Electives	6
Select two electives (6 credit hours) from the following:	
URSP 622 Community Socioeconomic Analysis Using GIS (offered in fall semester)	3
URSP 626 Transportation Analytics and Modeling (offered in spring semester)	3
URSP 627 GIS Applications in Urban Design (offered in spring semester)	3
Total graduate credit hours required (minimum)	12

Other GIS-related courses may be approved by the program chair or certificate program coordinator.

All credits earned in the certificate program are transferable to the Master of Science in Criminal Justice, the Master of Public Administration or the Master of Urban and Regional Planning programs. However, students must apply to the certificate and master's degree programs separately.

Sample plan of study

The following schedule is suggested as a means of completing the certificate program:

program.	
Courses	Credit hours
Fall semester	
URSP 621 Introduction to Geographic Information Systems	3
One GIS-related elective (see list above) or other approved course	3
Spring semester	
URSP 625 Spatial Database Management and GIS Modeling	3
One GIS-related elective (see list above) or other approved course	3
Total graduate credit hours required (minimum)	12

Other GIS-related courses may be approved by the program chair or certificate program coordinator.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Homeland Security and Emergency Preparedness, Certificate in (Post-baccalaureate graduate certificate)

Graduate program director

William V. Pelfrey Jr., Ph.D.

Program chair, Homeland Security and Emergency Preparedness wypelfrey@ycu.edu

(804) 828-8467

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School

rrhuff@vcu.edu

(804) 828-6837

Program website: wilder.vcu.edu/academic/certificate/security.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Homeland Security and Emergency Preparedness, Master of Arts (M.A.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Certificate	Fall	Apr 1 (Mar 1 for	
		financial aid)	
	Spring	Oct 1	

Admission applications that do not have a decision will automatically carry over to the next semester for consideration.

Applicants must meet all general admission requirements of the VCU Graduate School

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

This certificate program complements a student's other fields of interest in public and government affairs. The curriculum focuses upon international and domestic security and preparedness issues related to terrorist threats, such as the 9/11 attack, and natural disasters, such as Hurricane Katrina. Since the attacks of Sept. 11, 2001, homeland security and emergency preparedness has become a critical aspect of governmental policy at the federal, state and local levels, as well as within the private sector. The L. Douglas Wilder School of Government and Public Affairs believes that a stable and productive evolution of public and private sector policies in this area can only be achieved if academe recognizes and accepts its role in developing scholars, professional policy analysts and informed governmental decision makers.

Student learning outcomes

Students will achieve comprehension of the theory and practice of homeland security and emergency preparedness and be able to analyze policy and synthesize information

Degree requirements

In addition to general VCU Graduate School graduation requirements, the graduate certificate program requires 15 credit hours, comprising five three-credit-hour graduate courses delivered through a combination of online technology and one on-campus session (three days) as described below. The courses offered in the certificate program are the same as those taken by students in the master's program. With minimum grades of B and upon acceptance into the master's program, these courses are fully transferable to the Master of Arts in Homeland Security and Emergency Preparedness degree program.

Online study

Web-based course delivery in an asynchronous format is designed around each course's own Blackboard site.

On-campus study

During the final week of the semester, the class will have a three-day in-class session from Thursday to Saturday. It will feature presentations and discussion of student projects and papers, as well as lectures, seminar sessions and exercises. Exceptions will be made for students who are unable to attend these sessions, such as active-duty military personnel or emergency managers involved in ongoing operations.

Curriculum requirements

Courses Credit hours

Total graduate credit hours required (minimum)	15
HSEP 603 Risk Assessment	3
Planning	
HSEP 602 Government, Industry and Community Strategic	3
Incident Command	
HSEP 601 Emergency Management: Response Planning and	3
HSEP 502 Survey of Terrorism	3
HSEP 501 Institutional Challenges of Security Preparedness	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Homeland Security and Emergency Preparedness, Master of Arts (M.A.)

Graduate program director

William V. Pelfrey Jr., Ph.D.

Program chair, Homeland Security and Emergency Preparedness wvpelfrey@vcu.edu

(804) 828-8467

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School

rrhuff@vcu.edu

(804) 828-6837

Program website: wilder.vcu.edu/academic/security

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Homeland Security and Emergency Preparedness, Certificate in (Post-baccalaureate graduate certificate)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Homeland Security and Emergency Preparedness, Master of Arts (M.A.)			
Degree: M.A.	Semester(s) of entry: Fall	Deadline dates: Apr 1 (Mar 1 for financial aid)	Test requirements: GRE, GMAT, MAT or LSAT
	Spring	October 1	

Special requirements:

These deadlines are designed to allow sufficient time for application review and admission processing. Applications may be submitted after the deadline; however, there is no guarantee of sufficient time for processing. Any application submitted too late for current semester processing will be considered for the following semester.

In addition to the general admission requirements of the VCU Graduate School, selection is made on the basis of prior academic performance, professional accomplishments and other indicators of the ability to pursue graduate studies and a professional career in a field related to homeland security and emergency preparedness. The application for admission requires:

- 1. A transcript documenting the completion of a bachelor's degree
- Three letters of reference (including both academic and professional references if possible)
- 3. A current resume
- 4. Satisfactory standardized test score (GRE, GMAT, MAT, LSAT)
- A minimum 2.7 GPA (on a 4.0 scale) in the last 60 semester hours of undergraduate work

Students not meeting these requirements who have demonstrated advanced competency on a professional basis may be admitted to the program provisionally. The provisional period shall consist of the first nine hours of designated graduate work in which all grades must be no less than B. Provisional admission does not constitute a waiver of the requirement related to a standardized test.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The Master of Arts in Homeland Security and Emergency Preparedness degree program is designed in the broadest interdisciplinary sense. Students will learn theoretical and practical knowledge that will prepare them for private or public sector employment in the expanding area of homeland security and emergency preparedness and/or further study in numerous areas of public policy. The curriculum focuses upon international and domestic security and preparedness issues related to terrorist threats, such as the 9/11 attack, and natural disasters, such as Hurricane Katrina. Since the attacks of Sept. 11, 2001, homeland security and emergency preparedness has become a critical aspect of governmental policy at the federal, state and local levels as well as within the private sector. The L. Douglas Wilder School of Government and Public Affairs believes that a stable and productive evolution of public and private sector policies in this area can only

be achieved if academe recognizes and accepts its role in developing scholars, professional policy analysts and informed governmental decision makers.

The master's degree is primarily an off-campus, online, distance-learning program. It has both off-campus (online) and on-campus (at VCU) components. VCU's program takes a broad interdisciplinary approach to preparedness that will give students the ability to see the larger organizational, social, political, ethical and economic aspects of disaster studies, in addition to the policy-making and implementation aspects. The scholarly study of homeland security and emergency preparedness rests at the intersection of national defense, emergency management, law enforcement and policy management. With expertise in criminal justice, geography, government (local, state, federal and foreign), international affairs, policy planning and public administration, the Wilder School is particularly well-suited for such a program. Its location in the state capital and situated just 90 minutes from the nation's capital also provides easy access to homeland security institutions and practitioners.

Student learning outcomes

- Students will achieve comprehension of the theory and practice of homeland security and emergency preparedness and be able to analyze policy and synthesize information in four key areas: risk and vulnerability analysis, strategic planning dilemmas of disasters and disaster preparedness, institutional coordination, and intelligence operations and legal/constitutional aspects
- Students will develop advanced skills in expository writing and oral presentation.
- Students will achieve comprehension of the theoretical and practical principles of emergency preparedness for both natural disasters and terrorist incidents and be able to analyze key topics related to natural disasters, emergency planning, terrorism and counterterrorism.
- Students will perform research, policy analysis and risk assessment using several methodological and theoretical approaches to homeland security and emergency preparedness.
- Students will also be able to evaluate scholarly and practitioner analyses of homeland security and emergency preparedness.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must complete a minimum of 36 graduate credit hours with a cumulative minimum GPA of 3.0.

Off-campus study

Web-based course delivery is designed around each course's own web-based site utilizing the Blackboard education system, which provides the following:

- 1. Course syllabus
- 2. Course reference materials and links to supporting websites
- 3. Course lectures
- Faculty-student and student-student communications via weekly discussion topics
- 5. Student writing assignments

Participation in online discussions is mandatory and will count for a significant percentage of each student's grades. Written work is submitted, evaluated and returned to students via the Blackboard education system assignment function.

On-campus study

During the final week of the semester, each class will have a three-day in-class session from Thursday to Saturday. It features presentations and discussion of student projects and papers, as well as lectures, seminar sessions and exercises. These sessions will include the formation of working groups of students from a number of classes in the program. Exceptions will be made for students who are unable to attend these sessions, such as active-duty military personnel or emergency managers involved in ongoing operations with provisions for maximum possible inclusion via electronic means and/or the substitution of additional student assignments equivalent to the on-campus study requirements.

Curriculum requirements

Courses	Credit hours
ENGR 630 Technology, Security and Preparedness	3
HSEP 501 Institutional Challenges of Security Preparedness	3
HSEP 502 Survey of Terrorism	3
HSEP 601 Emergency Management: Response Planning and Incident Command	3
HSEP 602 Government, Industry and Community Strategic Planning	3
HSEP 603 Risk Assessment	3
HSEP 610 Law Enforcement Policy and Judicial Precedent	3
HSEP 620 Private Sector Issues in Security and Preparedness	3
HSEP 650 Public Health System Preparedness	3
HSEP 690 Capstone Seminar	3
INFO/CISS 644 Principles of Computer and Information System Security	3
PADM/GVPA/CRJS/URSP 623 Research Methods for Government and Public Affairs	3

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate)

Graduate program director

Nancy Stutis, Ph.D. Interim program chair, Public Administration nbstutts@vcu.edu (804) 827-2164

Additional contact

Richard F. Huff, Ph.D.
Director of graduate studies, Wilder School
rrhuff@vcu.edu
(804) 828-6837

Program website: wilder.vcu.edu/academic/certificate/nonprofit.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Social Work, Master of (M.S.W.)/Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate)			
Degree: Certificate	Semester(s) of entry: Fall	Deadline dates: Apr 1 (Mar 1 for financial aid)	Test requirements: None
	Spring	Oct 1	

Special requirements:

36

Students who achieve a minimum GPA of 3.6 in certificate course work in the L. Douglas Wilder School of Government and Public Affairs are eligible to apply to the Master of Public Administration program, provided they do so before the completion of the certificate. The student must still formally apply and be admitted to the M.P.A. program. A 3.6 GPA in certificate work does not guarantee admission to the M.P.A. program.

In addition to the general admission requirements of the VCU Graduate School, admission to the certificate program requires the same procedure used in applying to the M.P.A., except that a standardized examination is not required.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

In the graduate Certificate in Nonprofit Management program, students gain knowledge and skills in nonprofit governance, management, fundraising, and program development and evaluation that they will need to become leaders and change agents in this rapidly growing sector. The school welcomes degree applicants from any undergraduate major, as entry- and top-level employees in nonprofit organizations have a wide range of backgrounds, including the sciences and humanities, social sciences, and technology. Courses are scheduled in the evening and on weekends with the working professional in mind.

Student learning outcomes

- 1. To understand the nonprofit sector's relationship to the for-profit and government sectors
- 2. To know how to build a fundraising and donor communication plan model
- To understand how to budget and evaluate the financial management practices of nonprofit organizations
- To have the skills to analyze and implement laws impacting nonprofit organizations and their governance

Degree requirements

In addition to general VCU Graduate School graduation requirements, the certificate requires a total of 15 graduate credit hours, comprising four courses in the graduate public administration program and one elective. The elective may be from the public administration curriculum or from elsewhere within the school or university.

Curriculum requirements

Curriculum requirements	
Courses	Credit hours
D : 1	12
Required courses	12 3
PADM 650 Principles of Nonprofit Management PADM 656 Fund Development for the Nonprofit Sector	3
PADM 659 Financial Management in Nonprofit Organizations	3
PADM 661 Nonprofit Law, Governance and Ethics	3
radivi our nonpront Law, Governance and Eurics	3
Elective	3
Select one 3-credit-hour elective from the following:	· ·
Select one 3 create nour elective from the following.	
PADM 583 Effective Managerial Communications	3
PADM 584 Planned Organizational Change	3
PADM 585 Power, Influence and Organizational Competence	3
PADM 591 Topic Seminar	3
PADM/GVPA 601 Principles of Public Administration	3
PADM 602 Public Administration Theory	3
PADM 603 Politics and Economics	3
PADM 604 Comparative Public Institutions	3
PADM/SOCY 605 Survey Research Methods	3
PADM 606 Government Management Models	3
PADM 607 Public Human Resource Management	3
PADM 609 Financial Management in Government	3
PADM 621 Organizational Behavior and Management in	3
Government	
PADM 622 Public Sector Budgeting	3
PADM/GVPA/CRJS/URSP 623 Research Methods for Government and Public Affairs	3
PADM 624 Quantitative Methods for Public Administration	3
(PADM 623 is a prerequisite for PADM 624)	3
PADM/GVPA 625 Public Policy Analysis	3
PADM 626 Intergovernmental Relations	3
PADM 627 Workshop in Policy Analysis and Evaluation	3
PADM/ENVS 628 Environmental Policy and Administration	3
PADM/URSP 630 Strategic Planning and Management in the	3
Public Sector	
PADM 637 Organic Human Resources Management	3
PADM 642 Grants Management	3
PADM 652 Administrative Law	3
PADM 654 Program Design and Evaluation in the Nonprofit	3
Sector PARM (577) St. A.I. S. C. A.I. S. C. S. C. A.I. S. C. S. C. A.I. S. C.	2
PADM 657 Nonprofit Advocacy and Government Relations PADM 660 Community Power Dynamics	3
*	3
PADM 662 Advanced Topics in Revenue and Taxation PADM 664 Local Government Administration	3
PADM 675 Comparative Public Administration	3
PADM 680 Executive Leadership Seminar	3
PADM 681 Governmental Administrative Decision-making	3
Processes	5
PADM 682 Advanced Public Human Resources Management	3
PADM/PHIL/GVPA 683 Administrative Ethics	3
PADM 689 Seminar in Public Administration: Integration of	3
Theory and Practice	
PADM 691 Topics in Public Administration	3

One graduate three credit-hour course from elsewhere in the Wilder School or elsewhere in the university (with approval from the program chair)

Total graduate credit hours required (minimum)

15

3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Social Work, Master of (M.S.W.)/Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate) [combined]

Graduate program directors

Melissa L. Abell, Ph.D. Director, M.S.W. program mlabell@vcu.edu (804) 828-2007

Nancy Stutts, Ph.D.

Interim program chair, Public Administration

nbstutts@vcu.edu

(804) 827-2164

Additional contacts

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School

rrhuff@vcu.edu

(804) 828-6837

Program websites: socialwork.vcu.edu and wilder.vcu.edu/academic/certificate/nonprofit.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate) Social Work, Master of (M.S.W.) with a concentration in clinical practice Social Work, Master of (M.S.W.) with a concentration in administration, planning and policy practice

Through a cooperative arrangement with the L. Douglas Wilder School of Government and Public Affairs, Master of Social Work students pursuing the concentration in administration, planning and policy practice may simultaneously earn the post-baccalaureate graduate certificate in nonprofit management offered by the L. Douglas Wilder School of Government and Public Affairs.

Application process

To earn the Certificate in Nonprofit Management simultaneously with the M.S.W., it is necessary to complete a graduate admissions application for the certificate program; however, no supporting documents are required for students who are already enrolled in good standing in the M.S.W. degree program.

Certificate requirements for M.S.W. students

Social work students enrolled in the SWAPPP concentration are required to complete three nonprofit courses: PADM 656, PADM 659 and PADM 661. Two social work SWAPPP courses are substituted for six credit hours of the certificate's 15 credit-hour requirement. One of these courses is SLWK 712 Social Work Planning and Administrative Practice I. The second course may be SLWK 711 Strategies for Social Work Planning and Administrative Practice II.

Note: M.S.W. students pursuing the clinical concentration must complete the entire 15 credit hours required for the Certificate in Nonprofit Management. Any six of the PADM nonprofit credit hours will satisfy the M.S.W. elective requirement for either concentration.

Refer to the program search function for specific admission requirements, application deadlines, program goals, student learning outcomes, degree requirements and graduation requirements for the stand-alone M.S.W. and Certificate in Nonprofit Management programs.

Curriculum requirements

Courses

PADM 656 Fund Development for the Nonprofit Sector	3
PADM 659 Financial Management for Nonprofit Organizations	3
PADM 661 Nonprofit Law, Governance and Ethics	3
SLWK 712 Social Work Planning and Administrative Practice I	3
SLWK 711 Strategies for Social Work Planning and Administrative Practice of SLWK 713 Social Work Planning and Administrative Practice II	or 3

Total graduate credit hours required (minimum) for the Certificate in Nonprofit Management for students in the M.S.W. program SWAPPP concentration

Public Administration, Master of (M.P.A.) with a concentration in budgeting and financial management

Program accreditation

National Association of Schools of Public Affairs and Administration

Graduate program director

Nancy Stutts, Ph.D.
Interim program chair, Public Administration nbstutts@vcu.edu (804) 827-2164

Additional contact

Richard F. Huff, Ph.D. Director of graduate studies, Wilder School rrhuff@vcu.edu (804) 828-6837

Program website: wilder.vcu.edu/academic/pubadmin.html

Refer to the program search feature of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate) Public Administration, Master of (M.P.A.), accelerated Bachelor of Arts in Political Science (B.A.) to master's Public Administration, Master of (M.P.A.), generalist curriculum

Public Administration, Master of (M.P.A.)/Juris Doctor (J.D.) from the University of Richmond [combined]

Public Administration, Master of (M.P.A.) with a concentration in executive leadership

Public Administration, Master of (M.P.A.) with a concentration in human resource management

Public Administration, Master of (M.P.A.) with a concentration in nonprofit management

Public Administration, Master of (M.P.A.) with a concentration in public policy analysis and evaluation

Public Administration, Master of (M.P.A.) with a concentration in state and local government management

Public Management, Certificate of (Post-baccalaureate graduate certificate)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Public Administration, Master of (M.P.A.) with a concentration in budgeting and financial management Degree: Deadline dates: Semester(s) of Test requirements: M.P.A. entry: Apr 1 (Mar 1 for GRE, GMAT, MAT Fall financial aid) or LSAT Oct 1 Spring Summer Feb 1

Special requirements:

15

These deadlines are designed to allow sufficient time for application review and admission processing. Applications may be submitted after the deadline; however, there is no guarantee of sufficient time for processing. Any application submitted too late for current semester processing will be considered for the following semester. Please contact the program chair with specific application questions.

Master of Public Administration students may pursue a generalist curriculum (in which elective courses are selected from the M.P.A. program or any department or school at VCU) or an area of concentration (choose the generalist curriculum from the drop-down list of program options when applying online). Many students will benefit from the depth in a specific area that a concentration provides. For students who pursue a concentration, elective courses must come from the approved list of courses for that concentration (choose the specific M.P.A. concentration from the drop-down list of program options when applying online).

In addition to the general admission requirements of the VCU Graduate School, selection is made on the basis of prior academic performance, professional accomplishments and other indicators of the ability to pursue graduate studies and a professional career in public management successfully. Specifically, the application for admission requires a transcript documenting the completion of a bachelor's degree, three letters of reference (including both academic and professional references if possible), a current resume and a satisfactory standardized test score (GRE, GMAT, MAT or LSAT). Students submitting LSAT scores must have taken an undergraduate math course (algebra, statistics or finite mathematics) and passed with a minimum grade of C.

No applicant will be considered for admission to the M.P.A. program within two years of having been terminated from the program or of having been rejected for admission to the program.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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General academic regulations for all graduate students in all graduate programs at VCU

Credit hours



Program goals

The Master of Public Administration program's mission supports a "generalist" conception of public administration. This seems quite appropriate as the students come from diverse academic and employment backgrounds and find jobs in a wide variety of government and nonprofit organizations.

M.P.A. students may pursue a generalist curriculum (in which the four elective courses are selected from the M.P.A. program or any department or school at VCU) or an area of concentration. Many students will benefit from the depth in a specific area that a concentration provides. If a student pursues a concentration, the elective courses must come from the approved list of courses for that concentration area.

The program's mission includes the following goals:

- Prepare professional public managers, public officials and citizens to meet the challenges of public service in both government and nonprofit sectors
- Advance the state of knowledge in the field of public administration through scholarly research and publications
- 3. Serve the profession and local, state, federal and international communities by extending faculty expertise and intellectual resources

Student learning outcomes

- 1. Students will participate in and contribute to the policy process.
- Students will lead and manage in public governance.
- 3. Students will solve problems and make decisions in public governance.
- 4. Students will communicate and interact with the workforce and citizenry.
- 5. Students will articulate and apply a public service perspective.

Degree requirements

The Master of Public Administration program is designed to meet the graduate educational needs of pre-service and in-service professionals for careers in public management and analysis in the public and nonprofit sectors. The degree requires a minimum of 36 graduate credit hours (39 credit hours for students with less than one year of experience in the public or nonprofit sector). In addition to the general VCU Graduate School graduation requirements, M.P.A. students must meet the following requirements:

- Students must complete a minimum of 36 graduate credit hours, as approved, with an overall minimum GPA of 3.0. Students who do not have at least one year of professional-level experience in the public sector or in a nonprofit agency are required to earn three additional hours of credit in a public service practicum/internship (for a total of 39 graduate credit hours for the degree).
- 2. Students may have no more than two C grades to graduate. Students who earn a D or F in a course will be dismissed from the program.
- 3. Students who are required to take the practicum/internship will usually do so during the summer between the first and second years or during the last semester of course work. The practicum must include a minimum of 300 hours as required by the National Association of Schools of Public Affairs and Administration. The scheduling of the practicum will be flexible enough to accommodate the needs of those students who pursue the degree on a part-time basis. Each practicum will be negotiated between VCU and the host agency, including the scope of work to be performed by the student, the type and extent of supervision, both within the agency and from the university, and the stipend. A learning contract will be executed among the department, the agency and the student. A written student project is required to complete the internship.
- 4. All students are required to complete the courses in the core curriculum unless competence in the subject matter can be demonstrated on the basis of previous experience or course work. Course work that is waived must be replaced by approved substitutions in order to meet the minimum 36 (or 39) graduate credit hours required for the degree.

Curriculum requirements

Courses	Credit hours
Core courses (required)	24
PADM/GVPA 601 Principles of Public Administration	3
PADM 602 Public Administration Theory	3
PADM 607 Public Human Resource Management	3
PADM 609 Financial Management in Government	3
PADM/GVPA/CRJS/URSP 623 Research Methods for	3
Government and Public Affairs	
PADM 624 Quantitative Methods for Public Administration	3
PADM/GVPA 625 Public Policy Analysis	3
PADM 689 Seminar in Public Administration: Integration of	3
Theory and Practice (capstone) or PADM 690 Reading Semina	ır
Budgeting and financial management concentration	12
Required concentration course	3
PADM 622 Public Sector Budgeting	3
Concentration electives: Select three courses from the	9
following list. With the approval of the public administration	_
program chair, other appropriate courses may be applied towar the concentration.	d
ECON 609 Advanced International Economics	3
ECON 616 Advanced Public Finance	3
INFO 661 Information Systems for Managers	3
PADM 642 Grants Management	3
PADM 662 Advanced Topics in Revenue and Taxation	3
	J
Internship (required for students with less than one year of professional experience in the public or nonprofit sector)	0 or 3
GVPA 693 Public Administration Internship	3
Total graduate credit hours required (minimum)	36 or 39

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Degree candidacy requirements



Graduation requirements

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Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Public Administration, Master of (M.P.A.) with a concentration in executive leadership

Program accreditation

National Association of Schools of Public Affairs and Administration

Graduate program director

Nancy Stutts, Ph.D.

Interim program chair, Public Administration

nbstutts@vcu.edu

(804) 827-2164

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School

rrhuff@vcu.edu

(804) 828-6837

Program website: wilder.vcu.edu/academic/pubadmin.html

Refer to the program search feature of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

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Public Administration, Master of (M.P.A.)/Juris Doctor (J.D.) from the University of Richmond [combined]

Public Administration, Master of (M.P.A.) with a concentration in budgeting and financial management

Public Administration, Master of (M.P.A.) with a concentration in human resource management

Public Administration, Master of (M.P.A.) with a concentration in nonprofit management

Public Administration, Master of (M.P.A.) with a concentration in public policy analysis and evaluation

Public Administration, Master of (M.P.A.) with a concentration in state and local government management

Public Management, Certificate of (Post-baccalaureate graduate certificate)

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Admission requirements

Public Administration, Master of (M.P.A.) with a concentration in executive leadership			
Degree: M.P.A.	Semester(s) of entry: Fall	Deadline dates: Apr 1 (Mar 1 for financial aid)	Test requirements: GRE, GMAT, MAT or LSAT
	Spring	Oct 1	
	Summer	Feb 1	

Special requirements:

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professional references if possible), a current resume and a satisfactory standardized test score (GRE, GMAT, MAT or LSAT). Students submitting LSAT scores must have taken an undergraduate math course (algebra, statistics or finite mathematics) and passed with a minimum grade of C.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The Master of Public Administration program's mission supports a "generalist" conception of public administration. This seems quite appropriate as the students come from diverse academic and employment backgrounds and find jobs in a wide variety of government and nonprofit organizations.

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The program's mission includes the following goals:

- Prepare professional public managers, public officials and citizens to meet the challenges of public service in both government and nonprofit sectors
- Advance the state of knowledge in the field of public administration through scholarly research and publications
- Serve the profession and local, state, federal and international communities by extending faculty expertise and intellectual resources

Student learning outcomes

- 1. Students will participate in and contribute to the policy process.
- 2. Students will lead and manage in public governance.
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- 4. Students will communicate and interact with the workforce and citizenry.
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Degree requirements

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- 4. All students are required to complete the courses in the core curriculum unless competence in the subject matter can be demonstrated on the basis of previous experience or course work. Course work that is waived must be replaced by approved substitutions in order to meet the minimum 36 (or 39) graduate credit hours required for the degree.

Curriculum requirements

Courses	Credit hours
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PADM 602 Public Administration Theory	3
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PADM 609 Financial Management in Government	3
PADM/GVPA/CRJS/URSP 623 Research Methods for Government and Public Affairs	3
PADM 624 Quantitative Methods for Public Administration	3
PADM/GVPA 625 Public Policy Analysis	3
PADM 689 Seminar in Public Administration: Integration of Theory and Practice (capstone) or PADM 690 Reading Seminar	3
Executive leadership concentration	12
Required concentration course	
PADM 680 Executive Leadership Seminar Concentration electives: Select three courses from the	3
following list. With the approval of the public administration program chair, other appropriate courses may be applied toward the concentration.	
PADM 621 Organizational Behavior and Management in Government	3
PADM/URSP 630 Strategic Planning and Management in the Public Sector	3
PADM 681 Governmental Administrative Decision-making Processes	3
PADM/PHIL/GVPA 683 Administrative Ethics	3
SCMA 651 Organizational Communication	3
Internship (required for students with less than one year of professional experience in the public or nonprofit sector)	0 or 3
GVPA 693 Internship	3
Total graduate credit hours required (minimum)	36 or 39

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing

master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduation requirements



Public Administration, Master of (M.P.A.) with a concentration in human resource management

Program accreditation

National Association of Schools of Public Affairs and Administration

Graduate program director

Nancy Stutts, Ph.D.

Interim program chair, Public Administration nbstutts@vcu.edu

(804) 827-2164

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School

rrhuff@vcu.edu

(804) 828-6837

Program website: wilder.vcu.edu/academic/pubadmin.html

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Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate) Public Administration, Master of (M.P.A.), accelerated Bachelor of Arts in Political Science (B.A.) to master's

Public Administration, Master of (M.P.A.), generalist curriculum

Public Administration, Master of (M.P.A.)/Juris Doctor (J.D.) from the University of Richmond [combined]

Public Administration, Master of (M.P.A.) with a concentration in budgeting and financial management

Public Administration, Master of (M.P.A.) with a concentration in executive leadership

Public Administration, Master of (M.P.A.) with a concentration in nonprofit management

Public Administration, Master of (M.P.A.) with a concentration in public policy analysis and evaluation

Public Administration, Master of (M.P.A.) with a concentration in state and local government management

Public Management, Certificate of (Post-baccalaureate graduate certificate)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Public Administration, Master of (M.P.A.) with a concentration in human resource management			
Degree: M.P.A.	Semester(s) of entry: Fall	Deadline dates: Apr 1 (Mar 1 for financial aid)	Test requirements: GRE, GMAT, MAT or LSAT
	Spring	Oct 1	
	Summer	Feb 1	

Special requirements:

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VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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General academic regulations for all graduate students in all graduate programs at VCU



Program goals

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The program's mission includes the following goals:

- Prepare professional public managers, public officials and citizens to meet the challenges of public service in both government and nonprofit sectors
- Advance the state of knowledge in the field of public administration through scholarly research and publications
- Serve the profession and local, state, federal and international communities by extending faculty expertise and intellectual resources

Student learning outcomes

- 1. Students will participate in and contribute to the policy process.
- 2. Students will lead and manage in public governance.
- 3. Students will solve problems and make decisions in public governance.
- 4. Students will communicate and interact with the workforce and citizenry.
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Degree requirements

The Master of Public Administration program is designed to meet the graduate educational needs of pre-service and in-service professionals for careers in public management and analysis in the public and nonprofit sectors. The degree requires a minimum of 36 graduate credit hours (39 credit hours for students with less than one year of experience in the public or nonprofit sector). In addition to the general VCU Graduate School graduation requirements, M.P.A. students must meet the following requirements:

- Students must complete a minimum of 36 graduate credit hours, as approved, with an overall minimum GPA of 3.0. Students who do not have at least one year of professional-level experience in the public sector or in a nonprofit agency are required to earn three additional hours of credit in a public service practicum/internship (for a total of 39 graduate credit hours for the degree).
- 2. Students may have no more than two C grades to graduate. Students who earn a D or F in a course will be dismissed from the program.
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- 4. All students are required to complete the courses in the core curriculum unless competence in the subject matter can be demonstrated on the basis of previous experience or course work. Course work that is waived must be replaced by approved substitutions in order to meet the minimum 36 (or 39) graduate credit hours required for the degree.

Curriculum requirements

Courses	Credit hours
Core courses (required)	24
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PADM 602 Public Administration Theory	3
PADM 607 Public Human Resource Management	3
PADM 609 Financial Management in Government	3
PADM/GVPA/CRJS/URSP 623 Research Methods for	3
Government and Public Affairs	

PADM 624 Quantitative Methods for Public Administration	3
PADM/GVPA 625 Public Policy Analysis	3
PADM 689 Seminar in Public Administration: Integration of	3
Theory and Practice (capstone) or PADM 690 Reading Seminar	
Human resource management concentration	12
Required concentration course	2
PADM 682 Advanced Public Human Resources Management	3
Concentration electives: Select three courses from the	9
following list. With the approval of the public administration	
program chair, other appropriate courses may be applied toward	
the concentration.	
ADLT 601 Adult Learning and Development	3
ADLT 621 Skills Development for Human Resource	3
Development	
ADLT 622 Human Resource Development Strategies and	3
Interventions	
ECON 631 Labor Market Theory and Analysis	3
INFO 661 Information Systems for Managers	3
MGMT 633 Issues in Labor Relations	3
MGMT 634 Collective Bargaining and Labor Arbitration	3
MGMT 649 Compensation Policy and Administration	3
PADM 637 Organic Human Resources Management	3
Internship (required for students with less than one year of	0 or 3
professional experience in the public or nonprofit sector)	.
GVPA 693 Internship	3
Total graduate credit hours required (minimum)	36 or 39

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduation requirements



Public Administration, Master of (M.P.A.) with a concentration in nonprofit management

Program accreditation

National Association of Schools of Public Affairs and Administration

Graduate program director

Nancy Stutts, Ph.D.

Interim program chair, Public Administration

nbstutts@vcu.edu

(804) 827-2164

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School

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Public Administration, Master of (M.P.A.) with a concentration in state and local government management

Public Management, Certificate of (Post-baccalaureate graduate certificate)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

management	stration, Master of (M.P.	A.) with a concentration	on in nonproint
Degree: M.P.A.	Semester(s) of entry: Fall	Deadline dates: Apr 1 (Mar 1 for financial aid)	Test requirements: GRE, GMAT, MAT, or LSAT
	Spring	Oct 1	
	Summer	Feb 1	

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Curriculum requirements

Courses	Credit hours
Core courses (required)	24
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PADM 602 Public Administration Theory	3
PADM 607 Public Human Resource Management	3
PADM/GVPA/CRJS/URSP 623 Research Methods for Public Administration	3
PADM 624 Quantitative Methods for Public Administration	3
PADM/GVPA 625 Public Policy Analysis	3
PADM 659 Financial Management in Nonprofit Organizations (This course replaces PADM 609 for those seeking the nonprofit management concentration only.)	3
PADM 689 Seminar in Public Administration: Integration of Theory and Practice (capstone) or PADM 690 Reading Seminar	3
Nonprofit management concentration	12
Required concentration course	
PADM 650 Principles of Nonprofit Management	3
Concentration electives: Select three courses from the following list. With the approval of the public administration program chair, other appropriate courses may be applied toward the concentration.	9
PADM 654 Program Design and Evaluation in the Nonprofit Sector	3
PADM 656 Fund Development for the Nonprofit Sector	3
PADM 657 Nonprofit Advocacy and Government Relations	3
PADM 661 Nonprofit Law, Governance and Ethics	3
Internship (required for students with less than one year of professional experience in the public or nonprofit sector)	0 or 3
GVPA 693 Internship	3
Total graduate credit hours required (minimum)	36 or 39

Degree candidacy requirements

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Public Administration, Master of (M.P.A.) with a concentration in public policy analysis and evaluation

Program accreditation

National Association of Schools of Public Affairs and Administration

Graduate program director

Nancy Stutis, Ph.D. Interim program chair, Public Administration nbstutts@vcu.edu (804) 827-2164

Additional contact

Richard F. Huff, Ph.D. Director of graduate studies, Wilder School rrhuff@vcu.edu (804) 828-6837

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Public policy and analysis evaluation concentration Concentration electives: Select four courses from the following	12
list. With the approval of the public administration program chair, other appropriate courses may be applied toward the concentration.	12
ECON 612 Econometrics	
INFO 661 Information Systems for Managers	3
PADM/SOCY 605 Survey Research Methods	3
PADM 627 Workshop in Policy Analysis and Evaluation	3
PADM/URSP 630 Strategic Planning and Management in the Public Sector	3
SCMA 645 Management Science	3
SCMA 669 Developing and Implementing Forecasting Methods for Business	3
SLWK 602 Policy, Community and Organizational Practice I	3
SLWK 606 Policy, Community and Organizational Practice II	3
SLWK 710 Concentration Social Policy	3
URSP 621 Introduction to Geographic Information Systems	3
Internship (required for students with less than one year of professional experience in the public or nonprofit sector)	0 or 3
GVPA 693 Public Administration Internship	3
Total graduate credit hours required (minimum)	36 or 39

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The Master of Public Administration program is designed to meet the graduate educational needs of pre-service and in-service professionals for careers in public management and analysis in the public and nonprofit sectors. The degree requires a minimum of 36 graduate credit hours (39 credit hours for students with less than one year of experience in the public or nonprofit sector). In addition to the general VCU Graduate School graduation requirements, M.P.A. students must meet the following requirements:

 Students must complete a minimum of 36 graduate credit hours, as approved, with an overall minimum GPA of 3.0. Students who do not have at least one year of professional-level experience in the public sector or in a nonprofit

- agency are required to earn three additional hours of credit in a public service practicum/internship (for a total of 39 graduate credit hours for the degree).
- Students may have no more than two C grades to graduate. Students who earn a D or F in a course will be dismissed from the program.
- 3. Students who are required to take the practicum/internship will usually do so during the summer between the first and second years or during the last semester of course work. The practicum must include a minimum of 300 hours as required by the National Association of Schools of Public Affairs and Administration. The scheduling of the practicum will be flexible enough to accommodate the needs of those students who pursue the degree on a part-time basis. Each practicum will be negotiated between VCU and the host agency, including the scope of work to be performed by the student, the type and extent of supervision, both within the agency and from the university, and the stipend. A learning contract will be executed among the department, the agency and the student. A written student project is required to complete the internship.
- 4. All students are required to complete the courses in the core curriculum unless competence in the subject matter can be demonstrated on the basis of previous experience or course work. Course work that is waived must be replaced by approved substitutions in order to meet the minimum 36 (or 39) graduate credit hours required for the degree.

Curriculum requirements

Courses	Credit hours
Core courses (required)	24
PADM/GVPA 601 Principles of Public Administration	3
PADM 602 Public Administration Theory	3
PADM 607 Public Human Resource Management	3
PADM 609 Financial Management in Government	3
PADM/GVPA/CRJS/URSP 623 Research Methods for Government and Public Affairs	3
PADM 624 Quantitative Methods for Public Administration	3
PADM/GVPA 625 Public Policy Analysis	3
PADM 689 Seminar in Public Administration: Integration of Theory and Practice (capstone) or PADM 690 Reading Seminar	3
State and local government management concentration Required concentration course	12
PADM 664 Local Government Administration	3
FADIN 004 Local Government Administration	3
Concentration electives: Select three courses from the following list. With the approval of the public administration program chair, other appropriate courses may be applied toward	9
the concentration.	3
PADM 604 Comparative Public Institutions	
PADM/URSP 630 Strategic Planning and Management in the Public Sector	3
PADM 682 Advanced Public Human Resources Management	3
SOCY 625 Urban Sociology	3
URSP 541 Urban Public Policy-making Processes	3
URSP/GVPA 632 Planning Theory and Processes	3
URSP 635 Legal and Legislative Foundations of Planning	3
URSP 662 Foundations for Development Planning	3
Internship (required for students with less than one year of professional experience in the public or nonprofit sector)	0 or 3
GVPA 693 Internship	3
Total graduate credit hours required (minimum)	36 or 39

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a

formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Public Administration, Master of (M.P.A.), accelerated Bachelor of Arts in Political Science (B.A.) to master's

Program accreditation

National Association of Schools of Public Affairs and Administration

Graduate program director

Nancy Stutts, Ph.D.

Interim program chair, Public Administration

nbstutts@vcu.edu

(804) 827-2164

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School

rrhuff@vcu.edu

(804) 828-6837

Program website: wilder.vcu.edu/academic/pubadmin.html

Refer to the program search feature of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Nonprofit Management, Certificate of (Post-baccalaureate graduate certificate)

Public Administration, Master of (M.P.A.), generalist curriculum

Public Administration, Master of (M.P.A.)/Juris Doctor (J.D.) from the University of Richmond [combined]

Public Administration, Master of (M.P.A.) with a concentration in budgeting and financial management

Public Administration, Master of (M.P.A.) with a concentration in executive leadership

Public Administration, Master of (M.P.A.) with a concentration in human resource management

Public Administration, Master of (M.P.A.) with a concentration in nonprofit management

Public Administration, Master of (M.P.A.) with a concentration in public policy analysis and evaluation

Public Administration, Master of (M.P.A.) with a concentration in state and local government management

Apply online at graduate.admissions.vcu.edu.

This program permits selected students to earn the B.A. and M.P.A. in a minimum of five years by taking certain master's-level courses during the senior year of their undergraduate program. The program is restricted to students with strong credentials and a clear interest in careers in the public or nonprofit sector. To be eligible, students must have completed 90 credit hours of undergraduate course work and have an overall GPA of 3.0, with a GPA of 3.3 in political science

courses. The accelerated program is limited to students majoring in political science who have a minimum of 9 credit hours in political science courses.

To be considered for acceptance into the program and before enrolling in 600-level M.P.A. courses, students must complete the application to graduate study, submit standardized test scores and supply the supporting information required for admission. Upon being accepted into the accelerated program, students must meet the same standards of performance as a graduate student that are described in detail in the "Satisfactory academic progress" section of the Graduate Bulletin, must maintain a 3.0 GPA and must satisfactorily complete all of the requirements for the degree, as stated in this bulletin. Guidance to students admitted to the accelerated program is provided by the public administration program director. Students should contact the M.P.A. graduate director for more information about admission procedures.

To graduate with a bachelor's degree, a student must complete 120 credit hours of course work. Of these credits, 33 must be in political science. Of the 33 political science credit hours, 15 are required (POLI 103 U.S. Government, POLI/INTL 105 International Relations, POLI 107 Political Theory, POLI 109 Comparative Politics and POLI 490 Senior Seminar). Students enrolled in the accelerated program may take up to six credits of graduate public administration courses in each of the final two semesters of their undergraduate course work. These courses are shared credit hours with the graduate program, meaning that they will be applied toward the undergraduate degree requirement and the graduate degree requirement. A maximum of 12 credit hours may be taken prior to the completion of the baccalaureate degree. The bachelor's degree will be awarded when the student has completed all requirements for the undergraduate degree, which may include the 12 graduate public administration credit hours.

The graduate courses that may be taken in the public administration program once a student is admitted to the accelerated program are as follows: PADM/GVPA 601 Principles of Public Administration, PADM 602 Public Administration Theory, PADM 607 Public Human Resource Management, PADM 609 Financial Management in Government, PADM/GVPA/CRJS/URSP 623 Research Methods for Government and Public Affairs, PADM 624 Quantitative Methods for Public Administration or a PADM elective course, and PADM 650 Principles of Nonprofit Management.

All accelerated program students must have their course schedules approved by the graduate public administration program director prior to registration.

Public Administration, Master of (M.P.A.), generalist curriculum

Program accreditation

National Association of Schools of Public Affairs and Administration

Graduate program director

Nancy Stutts, Ph.D. Interim program chair, Public Administration nbstutts@vcu.edu (804) 827-2164

Additional contact

Richard F. Huff, Ph.D. Director of graduate studies, Wilder School rrhuff@vcu.edu (804) 828-6837

Program website: wilder.vcu.edu/academic/pubadmin.html

Refer to the program search feature of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate) Public Administration, Master of (M.P.A.), accelerated Bachelor of Arts in Political Science (B.A.) to master's

Public Administration, Master of (M.P.A.)/Juris Doctor (J.D.) from the University of Richmond [combined]

Public Administration, Master of (M.P.A.) with a concentration in budgeting and financial management

Public Administration, Master of (M.P.A.) with a concentration in executive leadership

Public Administration, Master of (M.P.A.) with a concentration in human resource management

Public Administration, Master of (M.P.A.) with a concentration in nonprofit management

Public Administration, Master of (M.P.A.) with a concentration in public policy analysis and evaluation

Public Administration, Master of (M.P.A.) with a concentration in state and local government management

Public Management, Certificate of (Post-baccalaureate graduate certificate)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.P.A.	entry:	Apr 1 (Mar 1 for	GRE, GMAT, MAT
	Fall	financial aid)	or LSAT
	Spring	Oct 1	
	Summer	Feb 1	

These deadlines are designed to allow sufficient time for application review and admission processing. Applications may be submitted after the deadline; however, there is no guarantee of sufficient time for processing. Any application submitted too late for current semester processing will be considered for the following semester. Please contact the program chair with specific application questions.

Master of Public Administration students may pursue a generalist curriculum (in which elective courses are selected from the M.P.A. program or any department or school at VCU) or an area of concentration (choose the generalist curriculum from the drop-down list of program options when applying online). Many students will benefit from the depth in a specific area that a concentration provides. For students who pursue a concentration, elective courses must come from the approved list of courses for that concentration (choose the specific M.P.A. concentration from the drop-down list of program options when applying online).

In addition to the general admission requirements of the VCU Graduate School, selection is made on the basis of prior academic performance, professional accomplishments and other indicators of the ability to pursue graduate studies and a professional career in public management successfully. Specifically, the application for admission requires a transcript documenting the completion of a bachelor's degree, three letters of reference (including both academic and professional references if possible), a current resume and a satisfactory standardized test score (GRE, GMAT, MAT or LSAT). Students submitting LSAT scores must have taken an undergraduate math course (algebra, statistics or finite mathematics) and passed with a minimum grade of C.

No applicant will be considered for admission to the M.P.A. program within two years of having been terminated from the program or of having been rejected for admission to the program.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

> General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The Master of Public Administration program's mission supports a "generalist" conception of public administration. This seems quite appropriate as the students come from diverse academic and employment backgrounds and find jobs in a wide variety of government and nonprofit organizations.

M.P.A. students may pursue a generalist curriculum (in which the four elective courses are selected from the M.P.A. program or any department or school at VCU) or an area of concentration. Many students will benefit from the depth in a specific area that a concentration provides. If a student pursues a concentration, the elective courses must come from the approved list of courses for that concentration area.

The program's mission includes the following goals:

- Prepare professional public managers, public officials and citizens to meet the challenges of public service in both government and nonprofit sectors
- Advance the state of knowledge in the field of public administration through scholarly research and publications
- 3. Serve the profession and local, state, federal and international communities by extending faculty expertise and intellectual resources

Student learning outcomes

- 1. Students will participate in and contribute to the policy process.
- Students will lead and manage in public governance.
- 3. Students will solve problems and make decisions in public governance.
- 4. Students will communicate and interact with the workforce and citizenry.
- 5. Students will articulate and apply a public service perspective.

Degree requirements

The Master of Public Administration program is designed to meet the graduate educational needs of pre-service and in-service professionals for careers in public management and analysis in the public and nonprofit sectors. The degree requires a minimum of 36 graduate credit hours (39 credit hours for students with less than one year of experience in the public or nonprofit sector). In addition to the general VCU Graduate School graduation requirements, M.P.A. students must meet the following requirements:

- Students must complete a minimum of 36 graduate credit hours, as approved, with an overall minimum GPA of 3.0. Students who do not have at least one year of professional-level experience in the public sector or in a nonprofit agency are required to earn three additional hours of credit in a public service practicum/internship (for a total of 39 graduate credit hours for the degree).
- 2. Students may have no more than two C grades to graduate. Students who earn a D or F in a course will be dismissed from the program.
- 3. Students who are required to take the practicum/internship will usually do so during the summer between the first and second years or during the last semester of course work. The practicum must include a minimum of 300 hours as required by the National Association of Schools of Public Affairs and Administration. The scheduling of the practicum will be flexible enough to accommodate the needs of those students who pursue the degree on a part-time basis. Each practicum will be negotiated between VCU and the host agency, including the scope of work to be performed by the student, the type and extent of supervision, both within the agency and from the university, and the stipend. A learning contract will be executed among the department, the agency and the student. A written student project is required to complete the internship.
- 4. All students are required to complete the courses in the core curriculum unless competence in the subject matter can be demonstrated on the basis of previous experience or course work. Course work that is waived must be replaced by approved substitutions in order to meet the minimum 36 (or 39) graduate credit hours required for the degree.

Curriculum requirements

Courses Credit hours

Core courses (required) 24

PADM/GVPA 601 Principles of Public Administration	3
PADM 602 Public Administration Theory	3
PADM 607 Public Human Resource Management	3
PADM 609 Financial Management in Government	3
PADM/GVPA/CRJS/URSP 623 Research Methods for	3
Government and Public Affairs	
PADM 624 Quantitative Methods for Public Administration	3
PADM/GVPA 625 Public Policy Analysis	3
PADM 689 Seminar in Public Administration: Integration of	3
Theory and Practice (capstone) or PADM 690 Reading Seminar	
Generalist curriculum electives	12
Select courses from the public administration curriculum.	
PADM 583 Effective Managerial Communications	1
PADM 584 Planned Organizational Change	1
PADM 585 Power, Influence and Organizational Competence	1
PADM 591 Topic Seminar	3
PADM 603 Politics and Economics	3
PADM 604 Comparative Public Institutions	3
PADM/SOCY 605 Survey Research Methods	3
PADM 606 Government Management Models	3
PADM 621 Organizational Behavior and Management in	3
Government	
PADM 622 Public Sector Budgeting	3
PADM 626 Intergovernmental Relations	3
PADM 627 Workshop in Policy Analysis and Evaluation	3
PADM/ENVS 628 Environmental Policy and Administration	3
PADM/URSP 630 Strategic Planning and Management in the	3
Public Sector	
PADM 637 Organic Human Resources Management	3
PADM 642 Grants Management	3
PADM 650 Principles of Nonprofit Management	3
PADM 652 Administrative Law	3
PADM 654 Program Design and Evaluation in the Nonprofit	3
Sector	
PADM 656 Fund Development for the Nonprofit Sector	3
PADM 657 Nonprofit Advocacy and Government Relations	3
PADM 660 Community Power Dynamics	3
PADM 661 Nonprofit Law, Governance and Ethics	3
PADM 662 Advanced Topics in Revenue and Taxation	3
PADM 664 Local Government Administration	3
PADM 675 Comparative Public Administration	3
PADM 680 Executive Leadership Seminar	3
PADM 681 Governmental Administrative Decision-making	3
Processes	
PADM 682 Advanced Public Human Resources Management	3
PADM/PHIL/GVPA 683 Administrative Ethics	3
PADM 691 Topics in Public Administration	1-3
Internship (required for students with less than one year of	0 or 3
professional experience in the public or nonprofit sector)	
GVPA 693 Internship	3

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

36 or 39

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Public Administration, Master of (M.P.A.)/Juris Doctor (J.D.) from the University of Richmond [combined]

Program accreditation

National Association of Schools of Public Affairs and Administration

Graduate program director

Nancy Stutis, Ph.D. Interim program chair, Public Administration nbstutts@vcu.edu (804) 827-2164

Additional contact

Richard F. Huff, Ph.D. Director of graduate studies, Wilder School rrhuff@vcu.edu (804) 828-6837

Program website: wilder.vcu.edu/academic/pubadmin.html

Refer to the program search feature of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate) Public Administration, Master of (M.P.A.), accelerated Bachelor of Arts in Political Science (B.A.) to master's

Public Administration, Master of (M.P.A.), generalist curriculum

Public Administration, Master of (M.P.A.) with a concentration in budgeting and financial management

Public Administration, Master of (M.P.A.) with a concentration in executive leadership

Public Administration, Master of (M.P.A.) with a concentration in human resource management

Public Administration, Master of (M.P.A.) with a concentration in nonprofit management

Public Administration, Master of (M.P.A.) with a concentration in public policy analysis and evaluation

Public Administration, Master of (M.P.A.) with a concentration in state and local government management

Public Management, Certificate of (Post-baccalaureate graduate certificate)

Apply online at graduate.admissions.vcu.edu.

A cooperative arrangement with the T.C. Williams School of Law of the University of Richmond makes it possible for students to receive a law degree from the University of Richmond and the Master of Public Administration from VCU. The dual degree program is designed to provide its graduates with competency in both public administration and law. This competency is applicable to areas of practice drawing upon knowledge and skills from each of these fields. The program brings together persons interested in both the broader aspects of public policy and government affairs and the law. It also brings together two fields that require complementary knowledge and skills that may be directed toward

solving problems that are associated with the affairs of the government and nonprofit sectors. This integration of education in public administration and law draws on the contributions that each discipline can make to a professional knowledge base for practice in both fields.

Application process

Interested students must apply separately for and be admitted to the T.C. Williams School of Law at the University of Richmond and the Master of Public Administration ?program at VCU. Students who are accepted into the dual degree program are permitted to apply 12 credit hours of work in the M.P.A. degree program toward meeting the graduation requirements in the T.C. Williams School of Law and up to 12 credit hours of work in the University of Richmond law school toward meeting the graduation requirements for the M.P.A. This credit application enables participants in the dual degree program to complete the requirements for the J.D. and the M.P.A. in an estimated four years of full-time course work. Applicants for this program are required to meet all admission and academic standards of the T.C. Williams School of Law of the University of Richmond, the VCU Graduate School and the M.P.A. program.

Public Management, Certificate in (Post-baccalaureate graduate certificate)

Graduate program director

Nancy Stutts, Ph.D. Interim program chair, Public Administration nbstutts@vcu.edu (804) 827-2164

Additional contact

Richard F. Huff, Ph.D. Director of graduate studies, Wilder School rrhuff@vcu.edu (804) 828-6837

Program website: wilder.vcu.edu/academic/certificate/public.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Public Management, Certificate in (Post-baccalaureate graduate certificate)			
Degree: Certificate	Semester(s) of entry: Fall	Deadline dates: Apr 1 (Mar 1 for financial aid)	Test requirements:
	Spring	Oct 1	

Special requirements:

Students who achieve a minimum GPA of 3.6 in certificate course work in the L. Douglas Wilder School of Government and Public Affairs are eligible to apply to the Master of Public Administration program, provided they do so before the completion of the certificate. The student must still formally apply and be admitted to the M.P.A. program. A 3.6 GPA in certificate work does not guarantee admission to the M.P.A. program.

In addition to the general admission requirements of the VCU Graduate School, admission to the certificate program requires the same procedure in applying to the M.P.A., except that a standardized examination is not required.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on

program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The graduate certificate in public management is a program designed to enable practitioners in government and nonprofit organizations to acquire knowledge and skills in public administration without pursuing a full master's degree.

Student learning outcomes

- 1. Students will participate in and contribute to the policy process.
- 2. Students will lead and manage in public governance.
- 3. Students will articulate and apply a public service perspective.

Degree requirements

In addition to general VCU Graduate School graduation requirements, the certificate requires a total of 18 hours of graduate credit hours involving a mix of required and elective courses. The courses are the same as those offered to M.P.A. students.

Curriculum requirements

Courses Required courses	Credit hours
PADM 601 Principles of Public Administration	3
PADM 607 Public Human Resource Management	3
PADM 609 Financial Management in Government	3
Electives	9
Select three electives (9 graduate credit hours) from the following	:
PADM 583 Effective Managerial Communications	3
PADM 584 Planned Organizational Change	3
PADM 585 Power, Influence and Organizational Competence	3
PADM 591 Topic Seminar	3
PADM 602 Public Administration Theory	3
PADM 603 Politics and Economics	3
PADM 604 Comparative Public Institutions	3
PADM/SOCY 605 Survey Research Methods	3
PADM 606 Government Management Models	3
PADM 621 Organizational Behavior and Management in Government	3
PADM 622 Public Sector Budgeting	3
PADM/GVPA/CRJS/URSP 623 Research Methods for Government and Public Affairs	3
PADM 624 Quantitative Methods for Public Administration (PADM 623 is a prerequisite for PADM 624)	3
PADM/GVPA 625 Public Policy Analysis	3
PADM 626 Intergovernmental Relations	3
PADM 627 Workshop in Policy Analysis and Evaluation	3
PADM/ENVS 628 Environmental Policy and Administration	3
PADM/URSP 630 Strategic Planning and Management in the Public Sector	3
PADM 637 Organic Human Resources Management	3
PADM 642 Grants Management	3
PADM 650 Principles of Nonprofit Management	3

PADM 652 Administrative Law	3
PADM 654 Program Design and Evaluation in the Nonprofit	3
Sector	
PADM 656 Fund Development for the Nonprofit Sector	3
PADM 657 Nonprofit Advocacy and Government Relations	3
PADM 659 Financial Management in Nonprofit Organizations	3
PADM 660 Community Power Dynamics	3
PADM 661 Nonprofit Law, Governance and Ethics	3
PADM 662 Advanced Topics in Revenue and Taxation	3
PADM 664 Local Government Administration	3
PADM 675 Comparative Public Administration	3
PADM 680 Executive Leadership Seminar	3
PADM 681 Governmental Administrative Decision-making	3
Processes	
PADM 682 Advanced Public Human Resources Management	3
PADM/PHIL/GVPA 683 Administrative Ethics	3
PADM 689 Seminar in Public Administration: Integration of	3
Theory and Practice	
PADM 691 Topics in Public Administration	3
Other courses from elsewhere in the Wilder School or elsewhere	
in the university (with approval from the program chair)	

Total graduate credit hours required (minimum) Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Urban and Regional Planning, Master of (M.U.R.P.)

Program accreditation

Planning Accreditation Board

Graduate program director

I-Shian (Ivan) Suen, Ph.D.

Associate professor and program chair

isuen@vcu.edu

(804) 828-2721

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School rrhuff@vcu.edu (804) 828-6837

Program website: wilder.vcu.edu/academic/urban/grad.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Urban and Regional Planning, Master of (M.U.R.P.)/Juris Doctor (J.D.) with the University of Richmond [combined]

Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in community revitalization

Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in environmental planning

Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in metropolitan planning

Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in planning management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Urban and Regional Planning, Master of (M.U.R.P.)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements: GRE, GMAT, LSAT
M.U.R.P.	Fall	Apr 1 (Mar 1 for assistantship consideration or financial aid)	or MAT
	Spring	Oct 1	

Special requirements:

These deadlines are designed to allow sufficient time for application review and admission processing. Applications may be submitted after the deadline; however, there is no guarantee of sufficient time for processing. Any application submitted too late for current semester processing will be considered for the following semester.

In addition to the general admission requirements of the VCU Graduate School, the following specifications apply:

- Students must have a minimum 2.7 GPA (on a 4.0 scale) in their last 60 semester hours of undergraduate work. In addition, a minimum GPA of 3.0 must have been maintained in their undergraduate majors. Finally, applicants are expected to receive satisfactory scores on each of the categories in the GRE, LSAT, GMAT or MAT examinations.
- Students not meeting these requirements may be admitted to the program on a provisional basis. The provisional period shall consist of the first nine to 12 hours of designated graduate work in which all grades must be no less than B. Provisional admission does not constitute a waiver of the requirement related to a standardized test.
- Generally, at least two of the three letters of reference should come from former faculty.

All courses in the post-baccalaureate graduate Certificate in Urban Revitalization and the post-baccalaureate graduate Certificate in Geographic Information Systems may be applied to meet the requirement of the Master of Urban and Regional Planning degree. However, successful completion of either certificate does not guarantee admission into the M.U.R.P. degree program.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and

Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The Master of Urban and Regional Planning degree program envisions a better future by enhancing the quality of life in mature communities and regions, particularly in Virginia, but also elsewhere in the United States and abroad, through strong planning education, high-quality scholarship and professional planning practices. The goals for the program are to:

- Create a diverse learning environment that cultivates engagement of diverse participants — both students and faculty — in the program.
- Prepare students to be effective practitioners in a variety of planning-related organizations, especially in mature communities and regions, with competence in the preparation, presentation and implementation of professional plans and in doing planning-related work.
- Produce scholarship that increases knowledge and understanding of sustainability and planning support systems as well as the development of innovative methodological approaches and solutions to address issues related to sustainable community development.
- 4. Provide useful planning services to mature communities and regions, in cooperation with private and public planners, as appropriate.

Student learning outcomes

- Students should display evidence of having developed a multidisciplinary understanding of urban life.
- Students will display an understanding of the theory and practice of planning for cities and regions.
- 3. Students will display the skills necessary to work effectively and competently as planners in a variety of settings.
- Students will demonstrate an understanding of, and a willingness to act in accordance with, the ethics and values of the professional planner, as well as the social and environmental responsibilities of planners.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students in the M.U.R.P. degree program must:

- Complete a minimum of 48 graduate credit hours plus an internship (not for credit). A core of required courses accounts for 27 of these credit hours; the remaining 21 are electives. A minimum overall GPA of 3.0 (on a 4.0 scale) is required for receipt of the M.U.R.P. degree. In addition, students must receive a minimum grade of B for all core courses.
- 2. Complete either a six-credit thesis (URSP 764) or prepare a six-credit professional plan project through the professional plan course (URSP 762). Program administrators request permission to utilize the grade of PR, in addition to normal letter grades (A, B, C, D or F) in URSP 762 Professional Plan. This will allow students the ability to work on their plans over a more extended period of time, if necessary.

In selecting their elective courses, students may (1) opt for exposure to a wide array of planning-related subject matter (the generalist or comprehensive approach), (2) select one of the areas of specialization defined by the department's faculty (see the list that follows) or (3) develop an individualized program, focusing on one or more self-defined topics. Regardless of the approach selected, students are expected to meet regularly with their faculty advisers for discussion of their courses of study in relation to their career plans.

The following faculty-defined areas of specialization are offered by the department:

- 1. Community revitalization
- 2. Environmental planning

- Metropolitan planning
- Planning management

Curriculum requirements		
Courses		Credit nours
Required courses		27
IDES 500 Art and Design Methods Workshop or elective	3	
URSP 622 Community Socioeconomic Analysis Using GIS	3	
URSP/GVPA/PADM/URSP 623 Research Methods for Government and Public Affairs	3	
URSP/GVPA 632 Planning Theory and Processes	3	
URSP 635 Legal and Legislative Foundations of Planning	3	
URSP 662 Foundations for Development Planning	3	
URSP 761 Planning Studio I	3	
URSP 762 Professional Plan or URSP 764 Thesis or Projects	6	
Electives		21
Select seven electives (21 credit hours) from the following:		
URSP 502 Global Economic Change and Geography		
URSP 517 Historic Preservation in Planning		

URSP 520 Park Planning

URSP/GEOG/ENVS 521 Introduction to Geographic Information Systems

URSP 525 Site Planning and Graphics

URSP 541 Urban Public Policy-making Processes

URSP 567 The American Suburb

URSP 605 Urban Planning History

URSP 611 Principles of Urban Design

URSP 621 Introduction to Geographic Information Systems

URSP 625 Spatial Database Management and GIS Modeling

URSP 626 Transportation Analytics and Modeling

URSP 627 GIS Applications in Urban Design

URSP 628 Land Use Planning

URSP/PADM 630 Strategic Planning and Management in the Public Sector

URSP 637 Sustainable Community Development

URSP 641 Citizen Participation and Negotiation

URSP 643 Housing Policy

URSP 645 Sustainable Energy Planning and Policy

URSP 647 Adaptive Reuse of Buildings

URSP 650 Natural Resources and Environmental Planning

URSP 651 Transportation Policy and Planning

URSP 652 Environmental Analysis

URSP 653 Transportation Projects

URSP/ENVS/BIOL 654 Environmental Remote Sensing

URSP 655 Environmental Policy and Planning

URSP 658 Transportation Finance

URSP 659 Transportation Project Development and Evaluation

URSP 664 Urban Economic Development Policy

URSP 666 Urban Commercial Revitalization

URSP 672 Food Systems, Rural Development and Landscape Conservation

URSP 681 International Urban Policy and Planning

URSP 691 Topics in Urban and Regional Planning

URSP 794 Planning Practicum Seminar

URSP 797 Directed Research

With the approval of the program chair, other appropriate graduate courses may be applied as electives.

Total graduate credit hours required (minimum)

48

Concentrations

If a student chooses to pursue a specific concentration, the concentration courses and corresponding credit hours will take the place of electives in the above list. Refer to the program search function of the online VCU Bulletins for a complete description of concentration requirements.

Sample plan of study

Courses	Credit hours
First year, first semester	
URSP 610 Introduction to Planning	3
URSP 622 Community Socioeconomic Analysis using GIS	3
URSP 662 Foundations for Development Planning	3
Elective	3
First year, second semester	
URSP/GVPA/PADM/URSP 623 Research Methods in Government and Public Affairs	3
URSP/GVPA 632 Planning Theory and Processes	3
URSP 635 Legal and Legislative Foundations of Planning	3
Elective	3
Second year, first semester	
URSP 761 Planning Studio I	3
Elective	9
Second year, second semester	
URSP 762 Professional Plan or URSP 764 Thesis or Projects	6
Elective	6
Total graduate credit hours required (minimum)	48

Internship

The internship is designed to give students practical experience in planning-related activities in an institutional context. Normally, the internship is taken during the summer between the first and second year or during the second year. Many opportunities for internship positions, as well as part- and full-time jobs in planning at all levels of government, exist within the Richmond area. Upon request, the internship requirement may be waived for students with substantial planning-related professional experience.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

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Graduation requirements



Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in community revitalization

Program accreditation

Planning Accreditation Board

Graduate program director

I-Shian (Ivan) Suen, Ph.D.

Associate professor and program chair

isuen@vcu.edu

(804) 828-2721

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School

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Program website: wilder.vcu.edu/academic/urban/grad.html

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Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in metropolitan planning

Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in planning management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in community revitalization			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements: GRE, GMAT, LSAT
M.U.R.P.	Fall	Apr 1 (Mar 1 for assistantship consideration or financial aid)	or MAT
	Spring	Oct 1	

Special requirements:

These deadlines are designed to allow sufficient time for application review and admission processing. Applications may be submitted after the deadline; however, there is no guarantee of sufficient time for processing. Any application submitted too late for current semester processing will be considered for the following semester.

In addition to the general admission requirements of the VCU Graduate School, the following specifications apply:

- Students must have a minimum 2.7 GPA (on a 4.0 scale) in their last 60 semester hours of undergraduate work. In addition, a minimum GPA of 3.0 must have been maintained in their undergraduate majors. Finally, applicants are expected to receive satisfactory scores on each of the categories in the GRE, LSAT, GMAT or MAT examinations.
- Students not meeting these requirements may be admitted to the program on a provisional basis. The provisional period shall consist of the first nine to 12 hours of designated graduate work in which all grades must be no less than B. Provisional admission does not constitute a waiver of the requirement related to a standardized test

3. Generally, at least two of the three letters of reference should come from former faculty.

All courses in the post-baccalaureate graduate Certificate in Urban Revitalization and the post-baccalaureate graduate Certificate in Geographic Information Systems may be applied to meet the requirement of the Master of Urban and Regional Planning degree. However, successful completion of either certificate does not guarantee admission into the M.U.R.P. degree program.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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Program goals

The Master of Urban and Regional Planning degree program envisions a better future by enhancing the quality of life in mature communities and regions, particularly in Virginia, but also elsewhere in the United States and abroad, through strong planning education, high-quality scholarship and professional planning practices. The goals for the program are to:

- Create a diverse learning environment that cultivates engagement of diverse participants — both students and faculty — in the program.
- Prepare students to be effective practitioners in a variety of planning-related organizations, especially in mature communities and regions, with competence in the preparation, presentation and implementation of professional plans and in doing planning-related work.
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The following faculty-defined areas of specialization are offered by the department:

Courses

- 1. Community revitalization
- 2. Environmental planning
- 3. Metropolitan planning
- 4. Planning management

Curriculum requirements

	nour
Required courses	27
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URSP 622 Community Socioeconomic Analysis Using GIS	3
URSP/GVPA/PADM/URSP 623 Research Methods for Government and Public Affairs	3
URSP/GVPA 632 Planning Theory and Processes	3
URSP 635 Legal and Legislative Foundations of Planning	3
URSP 662 Foundations for Development Planning	3
URSP 761 Planning Studio I	3
URSP 762 Professional Plan or URSP 764 Thesis or Projects	6
Community revitalization concentration	12
Required courses	
URSP 664 Urban Economic Development Policy	3
URSP 666 Urban Commercial Revitalization	3
Concentration electives: Select six credit hours from the following. With the approval of the program chair, other appropriate graduate courses may be applied toward the concentration.	6
FIRE 629 Real Estate Investment Analysis	3
PADM 609 Financial Management in Government	3
PADM 650 Principles of Nonprofit Management	3
PADM 656 Fund Development for the Nonprofit Sector	3
URSP 517 Historic Preservation in Planning	3
URSP 541 Urban Public Policy-making Processes	3
URSP 611 Principles of Urban Design	3
URSP 621 Introduction to Geographic Information Systems	3
URSP 627 GIS Applications in Urban Design	3
URSP 628 Land Use Planning	3
URSP 641 Citizen Participation and Negotiation	3
URSP 643 Housing Policy	3
URSP 647 Adaptive Reuse of Buildings	3
URSP 659 Transportation Project Development and Evaluation	3
URSP 672 Food Systems, Rural Development and Landscape Conservation	3

URSP 691Topics in Urban and Regional Planning (when the topic is race, 3 gender and ethnicity in planning; digital graphic design and desktop publishing; historic preservation applications; architectural analysis and historic preservation; or fundamentals of design for planners)

Electives: Select nine credit hours from the list below. With the approval 9 of the program chair, other appropriate courses may be applied as electives.

URSP 502 Global Economic Change and Geography	3
URSP 520 Park Planning	3
URSP 521 Introduction to Geographic Information Systems	3
URSP 525 Site Planning and Graphics	3
URSP 567 The American Suburb	3
URSP 605 Urban Planning History	3
URSP 625 Spatial Database Management and GIS Modeling	3
URSP 626 Transportation Analytics and Modeling	3
URSP/PADM 630 Strategic Planning and Management in the Public	3
Sector	
URSP 637 Sustainable Community Development	3
URSP 645 Sustainable Energy Planning and Policy	3
URSP 650 Natural Resources and Environmental Planning	3
URSP 651 Transportation Policy and Planning	3
URSP 652 Environmental Analysis	3
URSP 653 Transportation Projects	3
URSP/ENVS/BIOL 654 Environmental Remote Sensing	3
URSP 655 Environmental Policy and Planning	3
URSP 658 Transportation Finance	3
URSP 681 International Urban Policy and Planning	3
URSP 691 Topics in Urban and Regional Planning	3
URSP 794 Planning Practicum Seminar	3
URSP 797 Directed Research	3

Total graduate credit hours required (minimum)

48

Internship

Credit

hours

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- 1. Community revitalization
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Curriculum requirements

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URSP/GVPA/PADM/URSP 623 Research Methods for Government and Public Affairs	1 3
URSP/GVPA 632 Planning Theory and Processes	3
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URSP 662 Foundations for Development Planning	3
URSP 761 Planning Studio I	3
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Environmental planning concentration	12
Required courses	_
URSP 645 Sustainable Energy Policy and Planning	3
URSP 650 Natural Resource and Environmental Planning	3
Concentration electives: Select six credit hours from the following. With the approval of the program chair, other appropriate graduate courses make applied toward the concentration.	
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- Create a diverse learning environment that cultivates engagement of diverse participants — both students and faculty — in the program.
- Prepare students to be effective practitioners in a variety of planning-related organizations, especially in mature communities and regions, with competence in the preparation, presentation and implementation of professional plans and in doing planning-related work.
- Produce scholarship that increases knowledge and understanding of sustainability and planning support systems as well as the development of innovative methodological approaches and solutions to address issues related to sustainable community development.
- 4. Provide useful planning services to mature communities and regions, in cooperation with private and public planners, as appropriate.

Student learning outcomes

- Students should display evidence of having developed a multidisciplinary understanding of urban life.
- Students will display an understanding of the theory and practice of planning for cities and regions.
- Students will display the skills necessary to work effectively and competently as planners in a variety of settings.
- Students will demonstrate an understanding of, and a willingness to act in accordance with, the ethics and values of the professional planner, as well as the social and environmental responsibilities of planners.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students in the M.U.R.P. degree program must:

- Complete a minimum of 48 graduate credit hours plus an internship (not for credit). A core of required courses accounts for 27 of these credit hours; the remaining 21 are electives. A minimum overall GPA of 3.0 (on a 4.0 scale) is required for receipt of the M.U.R.P. degree. In addition, students must receive a minimum grade of B for all core courses.
- 2. Complete either a six-credit thesis (URSP 764) or prepare a six-credit professional plan project through the professional plan course (URSP 762). Program administrators request permission to utilize the grade of PR, in addition to normal letter grades (A, B, C, D or F) in URSP 762 Professional Plan. This will allow students the ability to work on their plans over a more extended period of time, if necessary.

In selecting their elective courses, students may (1) opt for exposure to a wide array of planning-related subject matter (the generalist or comprehensive approach), (2) select one of the areas of specialization defined by the department's faculty (see the list that follows) or (3) develop an individualized program, focusing on one or more self-defined topics. Regardless of the approach selected, students are expected to meet regularly with their faculty advisers for discussion of their courses of study in relation to their career plans.

The following faculty-defined areas of specialization are offered by the department:

- 1. Community revitalization
- 2. Environmental planning
- 3. Metropolitan planning
- 4. Planning management

Curriculum requirements

Courses	hours
Required courses	27
URSP 610 Introduction to Planning	3
URSP 622 Community Socioeconomic Analysis Using GIS	3
URSP/GVPA/PADM/URSP 623 Research Methods for Government and	3
Public Affairs	
URSP/GVPA 632 Planning Theory and Processes	3
URSP 635 Legal and Legislative Foundations of Planning	3
URSP 662 Foundations for Development Planning	3
URSP 761 Planning Studio I	3
URSP 762 Professional Plan or URSP 764 Thesis or Projects	6
Metropolitan planning concentration	12
Required courses	
URSP 628 Land Use Planning	3
URSP 651 Transportation Policy and Planning	3
Concentration electives: Select six credit hours from the following. With the approval of the program chair, other appropriate graduate courses may be applied toward the concentration.	6
FIRE 627 Real Estate Development	3
URSP 520 Park Planning	3
URSP 541 Urban Public Policy-making Processes	3
URSP 611 Principles of Urban Design	3
URSP 621 Introduction to Geographic Information Systems	3
URSP 625 Spatial Database Management and GIS Modeling	3
URSP 626 Transportation Analytics and Modeling	3
URSP 627 GIS Applications in Urban Design	3
URSP 641 Citizen Participation and Negotiation	3
URSP 643 Housing Policy	3
URSP 659 Transportation Project Development and Evaluation	3
URSP 664 Urban Economic Development Policy	3
URSP 672 Food Systems, Rural Development and Landscape	3
Conservation	
URSP 681 International Urban Policy and Planning	3

URSP 691-902 Topics in Urban and Regional Planning (when the topic is 3 race, gender, ethnicity in planning; digital graphic design and desktop publishing; or fundamentals of design for planners

Electives: Select nine credit hours from the list below. With the approval **9** of the program chair, other appropriate courses may be applied as electives.

URSP 502 Global Economic Change and Geography	3
URSP 517 Historic Preservation in Planning	3
URSP 521 Introduction to Geographic Information Systems	3
URSP 525 Site Planning and Graphics	3
URSP 567 The American Suburb	3
URSP 605 Urban Planning History	3
URSP/PADM 630 Strategic Planning and Management in the Public	3
Sector	
URSP 637 Sustainable Community Development	3
URSP 645 Sustainable Energy Planning and Policy	3
URSP 647 Adaptive Reuse of Buildings	3
URSP 650 Natural Resources and Environmental Planning	3
URSP 652 Environmental Analysis	3
URSP 653 Transportation Projects	3
URSP/ENVS/BIOL 654 Environmental Remote Sensing	3
URSP 655 Environmental Policy and Planning	3
URSP 658 Transportation Finance	3
URSP 666 Urban Commercial Revitalization	3
URSP 691 Topics in Urban and Regional Planning	3
URSP 794 Planning Practicum Seminar	3
URSP 797 Directed Research	3

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Internship

Credit

The internship is designed to give students practical experience in planning-related activities in an institutional context. Normally, the internship is taken during the summer between the first and second year or during the second year. Many opportunities for internship positions, as well as part- and full-time jobs in planning at all levels of government, exist within the Richmond area. Upon request, the internship requirement may be waived for students with substantial planning-related professional experience.

48

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in planning management

Program accreditation

Planning Accreditation Board

Graduate program director

I-Shian (Ivan) Suen, Ph.D.

Associate professor and program chair

isuen@vcu.edu

(804) 828-2721

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School

rrhuff@vcu.edu

(804) 828-6837

Program website: wilder.vcu.edu/academic/urban/grad.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Urban and Regional Planning, Master of (M.U.R.P.)

Urban and Regional Planning, Master of (M.U.R.P.)/Juris Doctor (J.D.) with the University of Richmond [combined]

Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in community revitalization

Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in environmental planning

Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in metropolitan planning

Apply online at graduate.admissions.vcu.edu.

Spring

Admission requirements

management	gional Planning, Master	of (M.U.R.P.) with a co	ncentration in planning
Degree:	Semester(s) of	Deadline	Test requirements:
	entry:	dates:	GRE, GMAT, LSAT
M.U.R.P.	Fall	Apr 1 (Mar 1 for assistantship consideration or financial aid)	or MAT

Special requirements:

These deadlines are designed to allow sufficient time for application review and admission processing. Applications may be submitted after the deadline; however, there is no guarantee of sufficient time for processing. Any application submitted too late for current semester processing will be considered for the following semester.

Oct 1

Students who wish to pursue this concentration must contact the program chair for additional information.

In addition to the general admission requirements of the VCU Graduate School, the following specifications apply:

- Students must have a minimum 2.7 GPA (on a 4.0 scale) in their last 60 semester hours of undergraduate work. In addition, a minimum GPA of 3.0 must have been maintained in their undergraduate majors. Finally, applicants are expected to receive satisfactory scores on each of the categories in the GRE, LSAT, GMAT or MAT examinations.
- Students not meeting these requirements may be admitted to the program on a provisional basis. The provisional period shall consist of the first nine to 12 hours of designated graduate work in which all grades must be no less than B. Provisional admission does not constitute a waiver of the requirement related to a standardized test.

Generally, at least two of the three letters of reference should come from former faculty.

All courses in the post-baccalaureate graduate Certificate in Urban Revitalization and the post-baccalaureate graduate Certificate in Geographic Information Systems may be applied to meet the requirement of the Master of Urban and Regional Planning degree. However, successful completion of either certificate does not guarantee admission into the M.U.R.P. degree program.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The Master of Urban and Regional Planning degree program envisions a better future by enhancing the quality of life in mature communities and regions, particularly in Virginia, but also elsewhere in the United States and abroad, through strong planning education, high-quality scholarship and professional planning practices. The goals for the program are to:

- Create a diverse learning environment that cultivates engagement of diverse participants — both students and faculty — in the program.
- Prepare students to be effective practitioners in a variety of planning-related organizations, especially in mature communities and regions, with competence in the preparation, presentation and implementation of professional plans and in doing planning-related work.
- Produce scholarship that increases knowledge and understanding of sustainability and planning support systems as well as the development of innovative methodological approaches and solutions to address issues related to sustainable community development.
- 4. Provide useful planning services to mature communities and regions, in cooperation with private and public planners, as appropriate.

Student learning outcomes

- Students should display evidence of having developed a multidisciplinary understanding of urban life.
- Students will display an understanding of the theory and practice of planning for cities and regions.
- Students will display the skills necessary to work effectively and competently as planners in a variety of settings.
- 4. Students will demonstrate an understanding of, and a willingness to act in accordance with, the ethics and values of the professional planner, as well as the social and environmental responsibilities of planners.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students in the M.U.R.P. degree program must:

- Complete a minimum of 48 graduate credit hours plus an internship (not for credit). A core of required courses accounts for 27 of these credit hours; the remaining 21 are electives. A minimum overall GPA of 3.0 (on a 4.0 scale) is required for receipt of the M.U.R.P. degree. In addition, students must receive a minimum grade of B for all core courses.
- 2. Complete either a six-credit thesis (URSP 764) or prepare a six-credit professional plan project through the professional plan course (URSP 762). Program administrators request permission to utilize the grade of PR, in addition to normal letter grades (A, B, C, D or F) in URSP 762 Professional Plan. This will allow students the ability to work on their plans over a more extended period of time, if necessary.

In selecting their elective courses, students may (1) opt for exposure to a wide array of planning-related subject matter (the generalist or comprehensive approach), (2) select one of the areas of specialization defined by the department's faculty (see the list that follows) or (3) develop an individualized program, focusing on one or more self-defined topics. Regardless of the approach selected, students are expected to meet regularly with their faculty advisers for discussion of their courses of study in relation to their career plans.

The following faculty-defined areas of specialization are offered by the department:

- 1. Community revitalization
- 2. Environmental planning
- Metropolitan planning
- 4. Planning management

Curriculum requirements

Courses	hour
Required courses	27
URSP 610 Introduction to Planning	3
URSP 622 Community Socioeconomic Analysis Using GIS	3
URSP/GVPA/PADM/URSP 623 Research Methods for Government and	3
Public Affairs	
URSP/GVPA 632 Planning Theory and Processes	3
URSP 635 Legal and Legislative Foundations of Planning	3
URSP 662 Foundations for Development Planning	3
URSP 761 Planning Studio I	3
URSP 762 Professional Plan or URSP 764 Thesis or Projects	6
Planning management concentration	9
Concentration electives: Select nine credit hours from the following. With	
the approval of the program chair, other appropriate graduate courses may be applied toward the concentration.	
ENVS/PADM 628 Environmental Policy and Administration	3
FIRE 627 Real Estate Development	3
PADM 609 Financial Management in Government	3
URSP 611 Principles of Urban Design	3
URSP 628 Land Use Planning	3
URSP 641 Citizen Participation and Negotiation	3
URSP 664 Urban Economic Development Policy	3
URSP 666 Urban Commercial Revitalization	3
Flactives: Select 12 credit hours from the list below. With the approval of	12

Electives: Select 12 credit hours from the list below. With the approval of **12** the program chair, other appropriate courses may be applied as electives.

URSP 502 Global Economic Change and Geography	3
URSP 517 Historic Preservation in Planning	3
URSP 520 Park Planning	3
URSP 521 Introduction to Geographic Information Systems	3
URSP 525 Site Planning and Graphics	3
URSP 541 Urban Public Policy-making Processes	3
URSP 567 The American Suburb	3
URSP 605 Urban Planning History	3

URSP 621 Introduction to Geographic Information Systems	3
URSP 625 Spatial Database Management and GIS Modeling	3
URSP 626 Transportation Analytics and Modeling	3
URSP 627 GIS Applications in Urban Design	3
URSP/PADM 630 Strategic Planning and Management in the Public	3
Sector	
URSP 637 Sustainable Community Development	3
URSP 643 Housing Policy	3
URSP 645 Sustainable Energy Planning and Policy	3
URSP 647 Adaptive Reuse of Buildings	3
URSP 650 Natural Resources and Environmental Planning	3
URSP 651 Transportation Policy and Planning	3
URSP 652 Environmental Analysis	3
URSP 653 Transportation Projects	3
URSP/ENVS/BIOL 654 Environmental Remote Sensing	3
URSP 655 Environmental Policy and Planning	3
URSP 658 Transportation Finance	3
URSP 659 Transportation Project Development and Evaluation	3
URSP 672 Food Systems, Rural Development and Landscape	3
Conservation	
URSP 681 International Urban Policy and Planning	3
URSP 691 Topics in Urban and Regional Planning	3
URSP 794 Planning Practicum Seminar	3
URSP 797 Directed Research	3

Total graduate credit hours required (minimum)

48

Internship

Credit

The internship is designed to give students practical experience in planning-related activities in an institutional context. Normally, the internship is taken during the summer between the first and second year or during the second year. Many opportunities for internship positions, as well as part- and full-time jobs in planning at all levels of government, exist within the Richmond area. Upon request, the internship requirement may be waived for students with substantial planning-related professional experience.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Urban and Regional Planning, Master of (M.U.R.P.)/Juris Doctor (J.D.) with the University of Richmond [combined]

Program accreditation

Planning Accreditation Board

Graduate program director

I-Shian (Ivan) Suen, Ph.D.

Associate professor and program chair

isuen@vcu.edu

(804) 828-2721

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School

rrhuff@vcu.edu

(804) 828-6837

Program website: wilder.vcu.edu/academic/urban/grad.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Urban and Regional Planning, Master of (M.U.R.P.)

Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in community revitalization

Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in environmental planning

Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in metropolitan planning

Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in planning management

Apply online at graduate.admissions.vcu.edu.

A cooperative arrangement with the T.C. Williams School of Law of the University of Richmond makes it possible for students to receive a law degree (J.D.) and an urban and regional planning degree (M.U.R.P.) in four years rather than the five years ordinarily required.

The purpose of the program is to integrate the two professional curricula and to provide the expertise necessary to apply legal analytical skills and planning methods and analysis to urban and regional policy issues and problems. The dual degree program is designed to equip graduates for a variety of professional positions, including staff for legislative committees and government agencies and commissions, government legal staff, private consulting, neighborhood advocacy, directorships of planning and related agencies and executive aides to elected officials.

Refer to individual program pages for admission requirements, application deadlines, program goals, student learning outcomes, degree requirements, curriculum requirements and graduation requirements specific to the separate programs and concentrations.

Application process

Interested students must apply separately for and be admitted to the T.C. Williams School of Law, University of Richmond, and the Master of Urban and Regional Planning program, VCU. Students will spend the entire first year in either the T.C. Williams School of Law or the L. Douglas Wilder School of Government and Public Affairs, and the second year in the program not selected the first year. Twelve credit hours of the planning program will be applied toward meeting the graduation requirements of the law school, and 12 credit hours in the law school will be applied toward meeting requirements of the M.U.R.P. program.

Upon admission to the dual-degree program, every student will be assigned an adviser in each program who will assist in planning a course of study that will include all of the required courses in each program plus such elective courses that will best serve the interests of the individual student.

Students deciding not to complete the dual degree program must meet all of the regular requirements of either the J.D. or M.U.R.P. to receive the degree of their choice.

Urban Revitalization, Certificate in (Post-baccalaureate graduate certificate)

Program accreditation

Planning Accreditation Board

Graduate program director

I-Shian (Ivan) Suen, Ph.D.

Associate professor and program chair

isuen@vcu.edu (804) 828-2721

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School

rrhuff@vcu.edu

(804) 828-6837

Program website: wilder.vcu.edu/academic/certificate/urban.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Urban and Regional Planning, Master of (M.U.R.P.)

Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in community revitalization

Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in environmental planning

Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in metropolitan planning

Urban and Regional Planning, Master of (M.U.R.P.) with a concentration in planning management

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Urban Revitalization, Certificate in (Post-baccalaureate graduate certificate)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Certificate	Fall	Apr 1 (Mar 1 for financial aid)	
		Oct 1	
	Spring		

Special requirements:

These deadlines are designed to allow sufficient time for application review and admission processing. Applications may be submitted after the deadline; however, there is no guarantee of sufficient time for processing. Any application submitted too late for current semester processing will be considered for the following semester.

In addition to the general admission requirements of the VCU Graduate School, the prerequisites and general criteria of eligibility for admission to the urban revitalization certificate program include:

- 1. Completion of an official application form
- 2. Three letters of reference
- 3. Letter of intent describing interest in applying for the Certificate in Urban Revitalization
- An official transcript showing successful completion of a baccalaureate degree or its equivalent from an accredited college or university with a minimum grade point average of 2.7 (out of 4.0) in the last 60 hours of undergraduate study
- Demonstration of professional experience in planning or work related to the certificate program (The experience requirement may be waived for candidates who demonstrate professional promise.)

All courses in the graduate Certificate in Urban Revitalization may be applied to meet the requirement of the Master of Urban and Regional Planning degree. However, successful completion of the certificate does not guarantee admission into the M.U.R.P. degree program.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate

programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Certificate in Urban Revitalization provides specialized training in the techniques and processes of city and neighborhood revitalization. Topics include adaptive reuse of buildings, historic preservation, real estate market analysis and the role of private-public partnerships in financing development projects. The certificate is useful for midcareer professionals who wish to learn new skills to expand their career options. It also is useful for recent college graduates who desire advanced training beyond the baccalaureate level and accelerated entry into the job market.

At any time, students in the certificate program may apply for admission into the Master of Urban and Regional Planning program and, if accepted, may transfer the certificate credits toward partial fulfillment of the master's degree requirements.

Student learning outcomes

- Students should display evidence of having developed a multidisciplinary understanding of urban life.
- 2. Students will demonstrate an understanding of, and a willingness to act in accordance with, the ethics and values of the professional.

Degree requirements

In addition to general VCU Graduate School graduation requirements, the Certificate in Urban Revitalization program requires 18 graduate credit hours of course work, which blends instruction in planning, urban design, economics and finance.

Curriculum requirements

Courses	Credit hours
Select six courses (18 credit hours) from the following:	18
FIRE 629 Real Estate Investment Analysis*	3
URSP 517 Historic Preservation in Planning	3
URSP 610 Introduction to Planning	3
URSP 611 Principles of Urban Design	3
URSP 643 Housing Policy	3
URSP 647 Adaptive Reuse of Buildings	3
URSP 664 Urban Economic Development Policy	3
URSP 666 Urban Commercial Revitalization	3
URSP 691 Topics in Urban and Regional Planning (architectural analysis and historical preservation)	3
URSP 691 Topics in Urban and Regional Planning (historical preservation application)	3
Other elective, if approved by the program chair or certificate program coordinator	3

For students who wish to focus primarily on historic preservation 12 of the program's 18 hours should include:

URSP 517 Historic Preservation in Planning 3

URSP 647 Adaptive Reuse of Buildings	3
URSP 691 Topics in Urban and Regional Planning (architectural	3
analysis and historical preservation)	
URSP 691 Topics in Urban and Regional Planning (historical	3
preservation application)	

18

*Either URSP 647 or FIRE 629, but not both, may be applied toward the degree requirements.

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Center for Public Policy

The Center for Public Policy focuses the university's multidisciplinary efforts in public policy. As a comprehensive, university-wide center, the center has responsibilities in each area of the university's broader missions: teaching, research and public service. The center houses and administers the Ph.D in Public Policy and Administration.

The center conducts basic and applied research on a number of public policy matters, with special attention to health policy, urban and metropolitan development, and state and local government and politics. And, the center engages in significant service through its training programs, conferences, publications and other contributions to public discourse.

Administration

919 W. Franklin St. P.O. Box 843061 Richmond, VA 23284-3061 (804) 828-6837 Fax: (804) 828-6838 http://www.vcu.edu/cppweb

William C. Bosher Jr., Ed.D. Director

Public Policy and Administration, Doctor of Philosophy (Ph.D.)

Graduate program director

Vacant

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School

rrhuff@vcu.edu

(804) 828-6837

Program website: wilder.vcu.edu/academic/pubpolicy.html

Refer to the program search feature of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in criminal justice policy

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in public administration

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in public policy

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in urban and regional policy

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Public Policy and Administration, Doctor of Philosophy (Ph.D.)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Ph.D.	Fall	Dec 15 for assistantships	GRE, GMAT, MAT or LSAT
		Jan 30 final date for admission consideration	International applicants TOEFL

Special requirements: master's degree, J.D. or M.D. from an accredited university. Graduate assistantships are only awarded for fall admission. For students wishing to be considered for a limited number of fellowships, materials must be received no later than Dec. 15. Spring admissions are considered exceptions and will be considered on a case-by-case basis.

Admission is open to qualified persons without regard to age, physical disability, national origin, race, religion or gender. Admission is competitive. The admission process is intended to assure a reasonable fit between the student's professional and research interests and faculty expertise. Consequently, otherwise qualified applicants may be denied admission.

In addition to the general admission requirements of the VCU Graduate School, applicants to the program must hold a master's degree or a recognized post-baccalaureate degree in one of the professions such as law or medicine from an accredited institution of higher education. A standardized test score, fewer than five years old, is required. Accepted examinations include the Graduate Record Examination, the Graduate Management Admissions Test, the Miller Analogies Test and the Law School Admissions Test. Professional experience is not required, but is considered desirable.

In order to apply for admission to the Ph.D. in Public Policy and Administration program, prospective students must submit:

- 1. A VCU application for graduate study
- 2. Transcripts from all previous colleges or universities
- 3. Scores from a standardized examination (GRE, GMAT, MAT or LSAT)
- 4. Three letters of reference
- 5. A personal statement describing reasons for applying to the program
- 6. A current professional resume

Admission standards

Applicants are evaluated based on the entire admission package; however, the following provides some guidelines for a competitive application.

 Cumulative minimum GPA of 3.6 (on a four-point scale) or equivalent for graduate-level work

- 2. Standardized examination scores
 - a. GRE (preferred):

200-800 scale (old)		130-170 scale (new)	
Quantitative	550+	Quantitative	146+
Verbal	550+	Verbal	156+
Minimum total	1100	Minimum total	302

- b. GMAT: Total score 600+
- c. LSAT: 150+d. MAT:
- e. Scaled score: 400+f. Percentiles: 70+
- g. TOEFL: Total score 90+ International applicants must submit the international application and TOEFL scores.
- 8. Three references a minimum of one academic recommendation attesting to the applicant's ability to succeed in doctoral-level work
- 9. Personal statement, resume, curriculum vitae that:
 - a. Clearly articulates the applicant's academic research interests whereby a decision can be made as to the applicant's "fit" with the program
 - b. Shows a clear indication of a faculty match and expertise for the applicant's research interests
 - c. Displays enthusiasm for the field of public policy and administration
 - d. Is well-written and error-free
- 5. All students admitted to the program must have completed prior to admission, or are required to complete during the first year, the following graduate-level courses (or their equivalents):
 - a. Research methods (equivalent of PADM/GVPA/CRJS/URSP 623)
 - b. Statistics (equivalent of PADM 624)
 - c. Public policy, economics or administration/management

The primary admission deadline is Jan. 30 for enrollment to begin the following fall semester; however, materials must be received no later than Dec.15 from those students wishing to be considered for assistantships. A small number of special admissions may be offered (Oct.15 application deadline) for entry the following spring semester; however, these are considered on a case-by-case basis. Assistantships are only offered to those offered full-time admission in the fall. Applicants who wish to be considered for the Oct.15 deadline must include a letter requesting and justifying early admission. If the request for early consideration is not accepted, the application will be held over to the Jan. 30 application deadline for consideration for the following fall admission.

While VCU Graduate School policy allows up to six credit hours of course work to be taken as a nondegree-seeking student prior to formal admission, taking such courses in no way guarantees admission to the program. Also, transfer credit hours are only considered for elective courses. Core courses must be taken at VCU.

Application information is available from the L. Douglas Wilder School of Government and Public Affairs Office of Graduate Advising or the Graduate Admissions Office. International applicant information and materials are available from International Admissions.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and

Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission

The mission of the Ph.D. in Public Policy and Administration program is to provide students with the knowledge and skills that will enable them to conduct original and scholarly research in academic institutions, governmental agencies and public policy research institutions. The purpose of the program is to prepare students for scholarly and leadership roles in government, universities, research organizations and other settings where knowledge and research skills in public policy and administration are needed. The doctoral program is committed to accomplishing this mission by creating an intellectually vibrant atmosphere for scholarship involving an active faculty from a broad spectrum of academic disciplines and substantial interaction with government agencies and community groups.

Program goals

- 1. Enable students to develop expertise in a particular area of public policy
- Enable students to apply their knowledge and skills in order to conduct original and scholarly research

Student learning outcomes

- Students will be able to expertly apply public policy theories, integrating
 relevant ideas, concepts and approaches from the humanities, social sciences,
 law and public administration to policy analysis, formulation and
 implementation.
- Students will be able to demonstrate mastery of a particular area of public policy.
- Students will be able to formulate appropriate research questions related to
 public policy and apply methodological knowledge to develop an appropriate
 research design for a research proposal.
- Students will be able to conduct original and scholarly research on public policy issues.

Degree requirements

The doctoral program is structured around a core curriculum and four areas of concentration. The curriculum is designed to provide a sound intellectual foundation for the pursuit of scholarly research in areas of public policy, urban and regional policy, public administration and criminal justice policy. Students will select a concentration after the first year of study and after passing the comprehensive examination.

In addition to general VCU Graduate School graduation requirements, students take a minimum of 45 graduate credit hours of course work and dissertation research in addition to any prerequisites that might be necessary. Five of these courses are part of the core, and at least four are concentration courses. The remaining three electives are to be taken outside the concentration with additional methodology courses highly recommended. Required courses generally will be available on an evening or weekend schedule.

Course work in the Ph.D. program has a strong orientation toward research, both applied and theoretical. Where appropriate, course work may be linked to funded university projects or to external agency-based analytical work. Courses emphasize research, writing and presentation skills.

All students must take a comprehensive qualifying examination on the core course requirements and a written or oral comprehensive examination in the concentration and must be approved by the VCU Graduate School for degree candidacy before beginning work on their dissertations.

Curriculum requirements

Courses Credit hours

Core courses (required)	15
PPAD 711 Seminar in Public Policy I	3
PPAD 712 Seminar in Public Policy II	3
PPAD 721 Survey of Applied Research Methods in Public	3
Policy	
PPAD 722 Survey of Data Analysis Techniques in Public Policy	3
PPAD 780 Synthesizing Seminar in Public Policy	3

All students will select a concentration after the first year of study and after passing the comprehensive examination. They will take four courses in one of the following areas of concentration. Courses will be selected from a list designated by the concentration committee for each area. The concentration committee will approve the program of study for each student in the concentration.

1. Criminal justice policy

Concentration courses

- 2. Public administration
- 3. Public policy
- 4. Urban and regional policy

Refer to the program search function of the online VCU Bulletins for a complete description of concentration requirements.

Electives outside of the concentration

9

9 (minimum)

12

Students will take at least three elective courses outside the concentration with the approval of their advisers. Students may take courses at the 500-level or higher from other Ph.D. concentration areas (as listed under each concentration) and other programs, such as homeland security and emergency preparedness, criminal justice, public administration. and urban and regional planning within the Wilder School. In addition, students may choose elective courses from among the following three-credit courses:

BIOS/STAT 543 Statistical Methods I	3
BIOS/STAT 544 Statistical Methods II	3
ECON 501 Introduction to Econometrics	3
ECON 612 Econometrics	3
ECON 641 Econometric Time-series Analysis	3
ECON 642 Panel and Nonlinear Methods in Econometrics	3
EDUS 711 Qualitative Methods and Analysis	3
ENGL 661 Themes in Interdisciplinary Studies	3
EPID 603 Public Health Policy and Politics	3
GSWS 602 Feminist Research Epistemology and Methods	3
GSWS 622 Women and Public Policy	3
HADM 763 Health Program Evaluation	3
HCPR 701 Health Services Research and Policy I	3
HCPR 702 Health Services Research and Policy II	3
INTL/NURS 514 International Perspectives on Community	3
Health in Developing Countries	2
MASC 613 Mass Media and Society	3
MATX 601 Texts and Textuality	3
NURS 770 Quantitative Research Design	3
NURS 772 Qualitative Research Design and Analysis	3
OPER 636/STAT 636 Machine Learning Algorithms	3

Dissertation research

PPAD 898 Dissertation Research

Total graduate credit hours required (minimum) 45

Qualifying examinations

After completing all of the core courses in the Ph.D. program, each student takes a **comprehensive qualifying examination on the core.** The examination is designed to evaluate the mastery students have achieved over the body of knowledge represented by the core. It is intended to measure the ability of students to organize, integrate and creatively apply the knowledge in the field to important problems. Although organized around the courses in the core, the examination is not restricted to material covered in those courses. It is expected that doctoral students will read well beyond the confines of individual courses.

In order to continue in the program, students must attempt the qualifying examination no later than the next regular semester following the completion of the core course requirements. They must pass the exam by the end of the second regular semester after completing the core course requirements. A student may attempt the examination twice. Examinations are offered twice per year.

A student also must take a **written or oral comprehensive examination in the concentration**. The concentration faculty will determine the form of the examination. A student may attempt the examination twice. Each student must pass this second examination before defending a dissertation proposal.

Dissertation

After completing all course work for the concentration and passing both qualifying examinations, students must prepare a dissertation involving original research that contributes to the body of knowledge in the field. A committee approved by the associate dean of the Wilder School supervises the dissertation work. The chair of the committee must be appointed as graduate faculty and be a core or affiliate faculty member of the Ph.D. program.

The first formal step in the dissertation process is the development and defense of a dissertation prospectus that frames the problem to be studied, provides background on the problem, presents a review of relevant literature and justifies the methodology to be used. The defense of the prospectus as well as the completed dissertation must be presented orally and be approved by the dissertation committee. The dissertation defense is conducted in a forum open to other students and faculty.

Sample plan of study

Third year, fall semester

Courses	Credit hours
First year, fall semester	
PPAD 711 Seminar in Public Policy I	3
PPAD 717 Law and Public Policy*	3
PPAD 721 Survey of Applied Research Methods in Public Policy	3
First year, spring semester	
PPAD 712 Seminar in Public Policy II	3
PPAD 716 Public Policy Economics*	3
PPAD 722 Survey of Data Analysis Techniques in Public Policy	3
*Recommended: See concentration listings for required and elective courses.	
First year, summer semester	
Electives (Students on 12-month assistantships are required to register for a minimum of three graduate credit hours.)	variable
Other optional courses	variable
Second year, fall semester	
PPAD 780 Synthesizing Seminar in Public Policy	3
Concentration courses	6
First comprehensive examination on the core	
Second year, spring semester	
Concentration courses and electives	variable

PPAD 898 Dissertation research	variable
Second comprehensive examination on the concentration	
Electives	variable

Third year, spring semester

PPAD 898 Dissertation research variable

Total graduate credit hours required (minimum)

45

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in criminal justice policy

Graduate program director

Vacant

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School

rrhuff@vcu.edu

(804) 828-6837

Program website: wilder.vcu.edu/academic/pubpolicy.html

Refer to the program search feature of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Public Policy and Administration, Doctor of Philosophy (Ph.D.)

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in public administration

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in public policy

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in urban and regional policy

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in criminal justice policy

in Ci illinai just	ice policy		
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Ph.D.	Fall	Dec 15 for assistantships	GRE, GMAT, MAT or LSAT
		Jan 30 final date for admission consideration	International applicants TOEFL

Special requirements: master's degree, J.D. or M.D. from an accredited university. Graduate assistantships are only awarded for fall admission. For students wishing to be considered for a limited number of fellowships, materials must be received no later than Dec. 15. Spring admissions are considered exceptions and will be considered on a case-by-case basis.

Admission is open to qualified persons without regard to age, physical disability, national origin, race, religion or gender. Admission is competitive. The admission process is intended to assure a reasonable fit between the student's professional and research interests and faculty expertise. Consequently, otherwise qualified applicants may be denied admission.

In addition to the general admission requirements of the VCU Graduate School, applicants to the program must hold a master's degree or a recognized post-baccalaureate degree in one of the professions such as law or medicine from an accredited institution of higher education. A standardized test score, fewer than five years old, is required. Accepted examinations include the Graduate Record Examination, the Graduate Management Admissions Test, the Miller Analogies Test and the Law School Admissions Test. Professional experience is not required, but is considered desirable.

In order to apply for admission to the Ph.D. in Public Policy and Administration program, prospective students must submit:

- 1. A VCU application for graduate study
- 2. Transcripts from all previous colleges or universities
- 3. Scores from a standardized examination (GRE, GMAT, MAT or LSAT)
- 4. Three letters of reference
- 5. A personal statement describing reasons for applying to the program
- 6. A current professional resume

Admission standards

Applicants are evaluated based on the entire admission package; however, the following provides some guidelines for a competitive application.

- Cumulative minimum GPA of 3.6 (on a four-point scale) or equivalent for graduate-level work
- 2. Standardized examination scores
 - a. GRE (preferred):

200-800 scale (old)		130-170 scale (new)	
Quantitative	550+	Quantitative	146+
Verbal	550+	Verbal	156+
Minimum total	1100	Minimum total	302

- b. GMAT: Total score 600+
- c. LSAT: 150+
- d. MAT:
 - i. Scaled score: 400+
 - ii. Percentiles: 70+
- TOEFL: Total score 90+ International applicants must submit the international application and TOEFL scores.
- Three references a minimum of one academic recommendation attesting to the applicant's ability to succeed in doctoral-level work
- 6. Personal statement, resume, curriculum vitae that:
 - Clearly articulates the applicant's academic research interests whereby a decision can be made as to the applicant's "fit" with the program

- b. Shows a clear indication of a faculty match and expertise for the applicant's research interests
- c. Displays enthusiasm for the field of public policy and administration
- d. Is well-written and error-free
- 5. All students admitted to the program must have completed prior to admission, or are required to complete during the first year, the following graduate-level courses (or their equivalents):
 - a. Research methods (equivalent of PADM/GVPA/CRJS/URSP 623)
 - b. Statistics (equivalent of PADM 624)
 - c. Public policy, economics or administration/management

The primary admission deadline is Jan. 30 for enrollment to begin the following fall semester; however, materials must be received no later than Dec.15 from those students wishing to be considered for assistantships. A small number of special admissions may be offered (Oct.15 application deadline) for entry the following spring semester; however, these are considered on a case-by-case basis. Assistantships are only offered to those offered full-time admission in the fall. Applicants who wish to be considered for the Oct.15 deadline must include a letter requesting and justifying early admission. If the request for early consideration is not accepted, the application will be held over to the Jan. 30 application deadline for consideration for the following fall admission.

While VCU Graduate School policy allows up to six credit hours of course work to be taken as a nondegree-seeking student prior to formal admission, taking such courses in no way guarantees admission to the program. Also, transfer credit hours are only considered for elective courses. Core courses must be taken at VCU.

Application information is available from the L. Douglas Wilder School of Government and Public Affairs Office of Graduate Advising or the Graduate Admissions Office. International applicant information and materials are available from International Admissions.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission

The mission of the Ph.D. in Public Policy and Administration program is to provide students with the knowledge and skills that will enable them to conduct original and scholarly research in academic institutions, governmental agencies and public policy research institutions. The purpose of the program is to prepare students for scholarly and leadership roles in government, universities, research organizations and other settings where knowledge and research skills in public policy and administration are needed. The doctoral program is committed to accomplishing this mission by creating an intellectually vibrant atmosphere for scholarship involving an active faculty from a broad spectrum of academic disciplines and substantial interaction with government agencies and community groups.

Program goals

- 1. Enable students to develop expertise in a particular area of public policy
- Enable students to apply their knowledge and skills in order to conduct original and scholarly research

Student learning outcomes

- Students will be able to expertly apply public policy theories, integrating
 relevant ideas, concepts and approaches from the humanities, social sciences,
 law and public administration to policy analysis, formulation and
 implementation.
- Students will be able to demonstrate mastery of a particular area of public policy.
- Students will be able to formulate appropriate research questions related to public policy and apply methodological knowledge to develop an appropriate research design for a research proposal.
- Students will be able to conduct original and scholarly research on public policy issues.

Degree requirements

The doctoral program is structured around a core curriculum and four areas of concentration. The curriculum is designed to provide a sound intellectual foundation for the pursuit of scholarly research in areas of public policy, urban and regional policy, public administration and criminal justice policy. Students will select a concentration after the first year of study and after passing the comprehensive examination.

In addition to general VCU Graduate School graduation requirements, students take a minimum of 45 graduate credit hours of course work and dissertation research in addition to any prerequisites that might be necessary. Five of these courses are part of the core, and at least four are concentration courses. The remaining three electives are to be taken outside the concentration with additional methodology courses highly recommended. Required courses generally will be available on an evening or weekend schedule.

Course work in the Ph.D. program has a strong orientation toward research, both applied and theoretical. Where appropriate, course work may be linked to funded university projects or to external agency-based analytical work. Courses emphasize research, writing and presentation skills.

All students must take a comprehensive qualifying examination on the core course requirements and a written or oral comprehensive examination in the concentration and must be approved by the VCU Graduate School for degree candidacy before beginning work on their dissertations.

Curriculum requirements

Courses	Credit hours
Core courses (required)	15
PPAD 711 Seminar in Public Policy I	3
PPAD 712 Seminar in Public Policy II	3
PPAD 721 Survey of Applied Research Methods in Public	3
Policy	
PPAD 722 Survey of Data Analysis Techniques in Public Policy	3
PPAD 780 Synthesizing Seminar in Public Policy	3
Criminal justice policy concentration	12
Concentration courses (required)	
PPAD 761 Seminar in Criminology	3
Additional research methods or statistics course	3
(within or outside the Wilder School)	
Concentration electives	6
Select 6 credit hours from the following:	
CRJS 760 Criminal Justice Policy and Program Evaluation (3)	
CRJS 761 Risk Assessment in Criminal Justice (3)	
PPAD 791 Special Topics Seminar (3)	

PPAD 792 Independent Study (3)

Electives outside of the concentration

BIOS/STAT 543 Statistical Methods I

9

3

Students will take at least three elective courses outside the concentration with the approval of their advisers. Students may take courses at the 500-level or higher from other Ph.D. concentration areas (as listed under each concentration) and other programs such as homeland security, criminal justice, public administration and urban and regional planning within the Wilder School. In addition, students may choose elective courses from among the following 3-credit courses:

BIOS/STAT 343 Statistical Methods I	3
BIOS/STAT 544 Statistical Methods II	3
ECON 501 Introduction to Econometrics	3
ECON 612 Econometrics	3
ECON 641 Econometric Time-series Analysis	3
ECON 642 Panel and Nonlinear Methods in Econometrics	3
EDUS 711 Qualitative Methods and Analysis	3
ENGL 661 Themes in Interdisciplinary Studies	3
EPID 603 Public Health Policy and Politics	3
GSWS 602 Feminist Research Epistemology and Methods	3
GSWS 622 Women and Public Policy	3
HADM 763 Health Program Evaluation	3
HCPR 701 Health Services Research and Policy I	3
HCPR 702 Health Services Research and Policy II	3
INTL/NURS 514 International Perspectives on Community	3
Health in Developing Countries	
MASC 613 Mass Media and Society	3
MATX 601 Texts and Textuality	3
NURS 770 Quantitative Research Design	3
NURS 772 Qualitative Research Design and Analysis	3
OPER 636/STAT 636 Machine Learning Algorithms	3
SWKD 704 Multiparadigmatic Qualitative Methods and	3
Analysis	
SWKD 705 Multivariate Analysis in Social Work and Human	3
Services Research	

Dissertation research	9 (minimum)
PPAD 898 Dissertation research	variable

Total graduate credit hours required (minimum) 45

Qualifying examinations

After completing all of the core courses in the Ph.D. program, each student takes a **comprehensive qualifying examination on the core.** The examination is designed to evaluate the mastery students have achieved over the body of knowledge represented by the core. It is intended to measure the ability of students to organize, integrate and creatively apply the knowledge in the field to important problems. Although organized around the courses in the core, the examination is not restricted to material covered in those courses. It is expected that doctoral students will read well beyond the confines of individual courses.

In order to continue in the program, students must attempt the qualifying examination no later than the next regular semester following the completion of the core course requirements. They must pass the exam by the end of the second regular semester after completing the core course requirements. A student may attempt the examination twice. Examinations are offered twice per year.

A student also must take a **written or oral comprehensive examination in the concentration**. The concentration faculty will determine the form of the examination. A student may attempt the examination twice. Each student must pass this second examination before defending a dissertation proposal.

Dissertation

After completing all course work for the concentration and passing both qualifying examinations, students must prepare a dissertation involving original research that

contributes to the body of knowledge in the field. A committee approved by the associate dean of the Wilder School supervises the dissertation work. The chair of the committee must be appointed as graduate faculty and be a core or affiliate faculty member of the Ph.D. program.

The first formal step in the dissertation process is the development and defense of a dissertation prospectus that frames the problem to be studied, provides background on the problem, presents a review of relevant literature and justifies the methodology to be used. The defense of the prospectus as well as the completed dissertation must be presented orally and be approved by the dissertation committee. The dissertation defense is conducted in a forum open to other students and faculty.

Sample plan of study

Courses	Credit hours
First year, fall semester	
PPAD 711 Seminar in Public Policy I	3
PPAD 717 Law and Public Policy*	3
PPAD 721 Survey of Applied Research Methods in Public Policy	3
First year, spring semester	
PPAD 712 Seminar in Public Policy II	3
PPAD 716 Public Policy Economics*	3
PPAD 722 Survey of Data Analysis Techniques in Public Policy	3
*Recommended: See concentration listings for required and elective courses.	
First year, summer semester	
Electives (Students on 12-month assistantships are required to register for a minimum of three graduate credit hours.)	variable
Other optional courses	variable
Second year, fall semester	
PPAD 780 Synthesizing Seminar in Public Policy	3
Concentration courses	6
First comprehensive examination on the core	
Second year, spring semester	
Concentration courses and electives	variable
Third year, fall semester	
PPAD 898 Dissertation research	variable
Second comprehensive examination on the concentration	
Electives	variable
Third year, spring semester	
PPAD 898 Dissertation research	variable
Total graduate credit hours required (minimum)	45

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in public administration

Graduate program director

Vacant

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School

rrhuff@vcu.edu

(804) 828-6837

Program website: wilder.vcu.edu/academic/pubpolicy.html

Refer to the program search feature of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Public Policy and Administration, Doctor of Philosophy (Ph.D.)

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in criminal justice policy

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in public policy

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in urban and regional policy

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in public administration

Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall	Dec 15 for	GRE, GMAT, MAT
		assistantships	or LSAT
		Jan 30 final date for	International
		admission consideration	applicants TOEFL

Special requirements: master's degree, J.D. or M.D. from an accredited university. Graduate assistantships are only awarded for fall admission. For students wishing to be considered for a limited number of fellowships, materials must be received no later than Dec. 15. Spring admissions are considered exceptions and will be considered on a case-by-case basis

Admission is open to qualified persons without regard to age, physical disability, national origin, race, religion or gender. Admission is competitive. The admission process is intended to assure a reasonable fit between the student's professional and research interests and faculty expertise. Consequently, otherwise qualified applicants may be denied admission.

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- 4. Three letters of reference
- 5. A personal statement describing reasons for applying to the program
- 6. A current professional resume

Admission standards

Applicants are evaluated based on the entire admission package; however, the following provides some guidelines for a competitive application.

- Cumulative minimum GPA of 3.6 (on a four-point scale) or equivalent for graduate-level work
- 2. Standardized examination scores
 - a. GRE (preferred):

200-800 scale (old)		130-170 scale (new)	
Quantitative	550+	Quantitative	146+
Verbal	550+	Verbal	156+
Minimum total	1100	Minimum total	302

- b. GMAT: Total score 600+
- c. LSAT: 150+
- d. MAT:

i. Scaled score: 400+ii. Percentiles: 70+

- TOEFL: Total score 90+ International applicants must submit the international application and TOEFL scores.
- Three references a minimum of one academic recommendation attesting to the applicant's ability to succeed in doctoral-level work
- 6. Personal statement, resume, curriculum vitae that:
 - Clearly articulates the applicant's academic research interests whereby a decision can be made as to the applicant's "fit" with the program
 - b. Shows a clear indication of a faculty match and expertise for the applicant's research interests
 - c. Displays enthusiasm for the field of public policy and administration
 - d. Is well-written and error-free
- All students admitted to the program must have completed prior to admission, or are required to complete during the first year, the following graduate-level courses (or their equivalents):
 - a. Research methods (equivalent of PADM/GVPA/CRJS/URSP 623)
 - b. Statistics (equivalent of PADM 624)
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General academic regulations for all graduate students in all graduate programs at VCU



Program mission

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Program goals

- 1. Enable students to develop expertise in a particular area of public policy
- 2. Enable students to apply their knowledge and skills in order to conduct original and scholarly research

Student learning outcomes

- Students will be able to expertly apply public policy theories, integrating
 relevant ideas, concepts and approaches from the humanities, social sciences,
 law and public administration to policy analysis, formulation and
 implementation.
- Students will be able to demonstrate mastery of a particular area of public policy.
- Students will be able to formulate appropriate research questions related to public policy and apply methodological knowledge to develop an appropriate research design for a research proposal.
- Students will be able to conduct original and scholarly research on public policy issues.

Degree requirements

The doctoral program is structured around a core curriculum and four areas of concentration. The curriculum is designed to provide a sound intellectual foundation for the pursuit of scholarly research in areas of public policy, urban and regional policy, public administration and criminal justice policy. Students will select a concentration after the first year of study and after passing the comprehensive examination.

In addition to general VCU Graduate School graduation requirements, students take a minimum of 45 graduate credit hours of course work and dissertation research in addition to any prerequisites that might be necessary. Five of these courses are part of the core, and at least four are concentration courses. The remaining three electives are to be taken outside the concentration with additional methodology courses highly recommended. Required courses generally will be available on an evening or weekend schedule.

Course work in the Ph.D. program has a strong orientation toward research, both applied and theoretical. Where appropriate, course work may be linked to funded university projects or to external agency-based analytical work. Courses emphasize research, writing and presentation skills.

All students must take a comprehensive qualifying examination on the core course requirements and a written or oral comprehensive examination in the concentration and must be approved by the VCU Graduate School for degree candidacy before beginning work on their dissertations.

Curriculum requirements

Courses	Credit hours
Core courses (required)	15
PPAD 711 Seminar in Public Policy I	3
PPAD 712 Seminar in Public Policy II	3
PPAD 721 Survey of Applied Research Methods in Public Policy	3
PPAD 722 Survey of Data Analysis Techniques for Public Policy	3
PPAD 780 Synthesizing Seminar in Public Policy	3
Public administration concentration	12
Concentration courses (required)	
PPAD 716 Public Policy Economics	3
PPAD 717 Law and Public Policy	3
Concentration electives	6
Select 6 credit hours from the following:	
GVPA 672 Social Equity and Public Policy Analysis (3	
PADM/URSP 630 Strategic Planning and Management in the	
Public Sector (3)	
PADM 650 Principles of Nonprofit Management (3)	
PADM 654 Program Design and Evaluation in the Nonprofit	
Sector (3)	
PADM 680 Executive Leadership Seminar (3)	
PADM 681 Governmental Administrative Decision-making	
Processes (3)	
PPAD 740 Seminar in Public Management (3)	
PPAD 741 Advanced Theory in Public Administration (3)	
PPAD 791 Topical Seminar (3)	
PPAD 792 Independent Study (3)	

Electives outside of the concentration

Students will take at least three elective courses outside the concentration with the approval of their advisers. Students may take courses at the 500-level or higher from other Ph.D. concentration areas (as listed under each concentration) and other programs such as homeland security, criminal justice, public administration and urban and regional planning within the Wilder School. In addition, students may choose elective courses from among the following 3-credit courses:

BIOS/STAT 543 Statistical Methods I	3
BIOS/STAT 544 Statistical Methods II	3
ECON 501 Introduction to Econometrics	3
ECON 612 Econometrics	3
ECON 641 Econometric Time-series Analysis	3
ECON 642 Panel and Nonlinear Methods in Econometrics	3
EDUS 711 Qualitative Methods and Analysis	3
ENGL 661 Themes in Interdisciplinary Studies	3

EPID 603 Public Health Policy and Politics	3	
GSWS 602 Feminist Research Epistemology and Methods	3	
GSWS 622 Women and Public Policy	3	
HADM 763 Health Program Evaluation	3	
HCPR 701 Health Services Research and Policy I	3	
HCPR 702 Health Services Research and Policy II	3	
INTL/NURS 514 International Perspectives on Community	3	
Health in Developing Countries		
MASC 613 Mass Media and Society	3	
MATX 601 Texts and Textuality	3	
NURS 770 Quantitative Research Design	3	
NURS 772 Qualitative Research Design and Analysis	3	
OPER 636/STAT 636 Machine Learning Algorithms	3	
SWKD 704 Multiparadigmatic Qualitative Methods and	3	
Analysis		
SWKD 705 Multivariate Analysis in Social Work and Human	3	
Services Research		

Dissertation research PPAD 898 Dissertation research	9 (minimum
Total graduate credit hours required (minimum)	45

Qualifying examinations

After completing all of the core courses in the Ph.D. program, each student takes a comprehensive qualifying examination on the core. The examination is designed to evaluate the mastery students have achieved over the body of knowledge represented by the core. It is intended to measure the ability of students to organize, integrate and creatively apply the knowledge in the field to important problems. Although organized around the courses in the core, the examination is not restricted to material covered in those courses. It is expected that doctoral students will read well beyond the confines of individual courses.

In order to continue in the program, students must attempt the qualifying examination no later than the next regular semester following the completion of the core course requirements. They must pass the exam by the end of the second regular semester after completing the core course requirements. A student may attempt the examination twice. Examinations are offered twice per year.

A student also must take a written or oral comprehensive examination in the concentration. The concentration faculty will determine the form of the examination. A student may attempt the examination twice. Each student must pass this second examination before defending a dissertation proposal.

Dissertation

After completing all course work for the concentration and passing both qualifying examinations, students must prepare a dissertation involving original research that contributes to the body of knowledge in the field. A committee approved by the associate dean of the Wilder School supervises the dissertation work. The chair of the committee must be appointed as graduate faculty and be a core or affiliate faculty member of the Ph.D. program.

The first formal step in the dissertation process is the development and defense of a dissertation prospectus that frames the problem to be studied, provides background on the problem, presents a review of relevant literature and justifies the methodology to be used. The defense of the prospectus as well as the completed dissertation must be presented orally and be approved by the dissertation committee. The dissertation defense is conducted in a forum open to other students and faculty.

Sample plan of study

Courses	Credit hours
First year, fall semester	
PPAD 711 Seminar in Public Policy I	3
PPAD 717 Law and Public Policy*	3
PPAD 721 Survey of Applied Research Methods in Public Policy	3

First year, spring semester

PPAD 712 Seminar in Public Policy II	3
PPAD 716 Public Policy Economics*	3
PPAD 722 Survey of Data Analysis Techniques in Public Policy	3
*Recommended: See concentration listings for required and elective courses.	

First year summer semester

First year, summer semester	
Electives (Students on 12-month assistantships are required to register for a minimum of three graduate credit hours.)	variable
Other optional courses	variable
Second year, fall semester	
PPAD 780 Synthesizing Seminar in Public Policy	3
Concentration courses	6
First comprehensive examination on the core	

Second year, spring semester

Concentration courses and electives	variable
-------------------------------------	----------

Third year, fall semester

PPAD 898 Dissertation research	variable
Second comprehensive examination on the concentration	
Electives	variable

Third year, spring semester

PPAD 898 Dissertation research	variable

Total graduate credit hours required (minimum)	45
Total graduate credit hours required (minimum)	73

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in public policy

Graduate program director

Vacant

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School

rrhuff@vcu.edu (804) 828-6837

Program website: wilder.vcu.edu/academic/pubpolicy.html

Refer to the program search feature of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Public Policy and Administration, Doctor of Philosophy (Ph.D.)

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in criminal justice policy

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in public administration

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in urban and regional policy

Apply online at graduate.admissions.vcu.edu.

Admission requirements

in public polic	<u> </u>		TD 4
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall	Dec 15 for assistantships	GRE, GMAT, MAT or LSAT
		Jan 30 final date for admission consideration	International applicants TOEFL

Special requirements: master's degree, J.D. or M.D. from an accredited university. Graduate assistantships are only awarded for fall admission. For students wishing to be considered for a limited number of fellowships, materials must be received no later than Dec. 15. Spring admissions are considered exceptions and will be considered on a caseby-case basis.

Admission is open to qualified persons without regard to age, physical disability, national origin, race, religion or gender. Admission is competitive. The admission process is intended to assure a reasonable fit between the student's professional and research interests and faculty expertise. Consequently, otherwise qualified applicants may be denied admission.

In addition to the general admission requirements of the VCU Graduate School, applicants to the program must hold a master's degree or a recognized postbaccalaureate degree in one of the professions such as law or medicine from an accredited institution of higher education. A standardized test score, fewer than five years old, is required. Accepted examinations include the Graduate Record Examination, the Graduate Management Admissions Test, the Miller Analogies Test and the Law School Admissions Test. Professional experience is not required, but is considered desirable.

In order to apply for admission to the Ph.D. in Public Policy and Administration program, prospective students must submit:

- 1. A VCU application for graduate study
- 2. Transcripts from all previous colleges or universities
- Scores from a standardized examination (GRE, GMAT, MAT or LSAT)
- Three letters of reference
- A personal statement describing reasons for applying to the program
- A current professional resume

Admission standards

Applicants are evaluated based on the entire admission package; however, the following provides some guidelines for a competitive application.

- Cumulative minimum GPA of 3.6 (on a four-point scale) or equivalent for graduate-level work
- Standardized examination scores
 - a. GRE (preferred):

200-800 scale (old)		130-170 scale (new)	
Quantitative	550+	Quantitative	146+
Verbal	550+	Verbal	156+
Minimum total	1100	Minimum total	302

b. GMAT: Total score 600+

c. LSAT: 150+d. MAT:

i. Scaled score: 400+

ii. Percentiles: 70+

- TOEFL: Total score 90+ International applicants must submit the international application and TOEFL scores.
- 5. Three references a minimum of one academic recommendation attesting to the applicant's ability to succeed in doctoral-level work
- 6. Personal statement, resume, curriculum vitae that:
 - Clearly articulates the applicant's academic research interests whereby a decision can be made as to the applicant's "fit" with the program
 - Shows a clear indication of a faculty match and expertise for the applicant's research interests
 - c. Displays enthusiasm for the field of public policy and administration
 - d. Is well-written and error-free
- 5. All students admitted to the program must have completed prior to admission, or are required to complete during the first year, the following graduate-level courses (or their equivalents):
 - a. Research methods (equivalent of PADM/GVPA/CRJS/URSP 623)
 - b. Statistics (equivalent of PADM 624)
 - c. Public policy, economics or administration/management

The primary admission deadline is Jan. 30 for enrollment to begin the following fall semester; however, materials must be received no later than Dec.15 from those students wishing to be considered for assistantships. A small number of special admissions may be offered (Oct.15 application deadline) for entry the following spring semester; however, these are considered on a case-by-case basis. Assistantships are only offered to those offered full-time admission in the fall. Applicants who wish to be considered for the Oct.15 deadline must include a letter requesting and justifying early admission. If the request for early consideration is not accepted, the application will be held over to the Jan. 30 application deadline for consideration for the following fall admission.

While VCU Graduate School policy allows up to six credit hours of course work to be taken as a nondegree-seeking student prior to formal admission, taking such courses in no way guarantees admission to the program. Also, transfer credit hours are only considered for elective courses. Core courses must be taken at VCU.

Application information is available from the L. Douglas Wilder School of Government and Public Affairs Office of Graduate Advising or the Graduate Admissions Office. International applicant information and materials are available from International Admissions.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission

The mission of the Ph.D. in Public Policy and Administration program is to provide students with the knowledge and skills that will enable them to conduct original and scholarly research in academic institutions, governmental agencies and public policy research institutions. The purpose of the program is to prepare students for scholarly and leadership roles in government, universities, research organizations and other settings where knowledge and research skills in public policy and administration are needed. The doctoral program is committed to accomplishing this mission by creating an intellectually vibrant atmosphere for scholarship involving an active faculty from a broad spectrum of academic disciplines and substantial interaction with government agencies and community groups.

Program goals

- 1. Enable students to develop expertise in a particular area of public policy
- 2. Enable students to apply their knowledge and skills in order to conduct original and scholarly research

Student learning outcomes

- Students will be able to expertly apply public policy theories, integrating
 relevant ideas, concepts and approaches from the humanities, social sciences,
 law and public administration to policy analysis, formulation and
 implementation.
- Students will be able to demonstrate mastery of a particular area of public policy.
- Students will be able to formulate appropriate research questions related to public policy and apply methodological knowledge to develop an appropriate research design for a research proposal.
- Students will be able to conduct original and scholarly research on public policy issues.

Degree requirements

The doctoral program is structured around a core curriculum and four areas of concentration. The curriculum is designed to provide a sound intellectual foundation for the pursuit of scholarly research in areas of public policy, urban and regional policy, public administration and criminal justice policy. Students will select a concentration after the first year of study and after passing the comprehensive examination.

In addition to general VCU Graduate School graduation requirements, students take a minimum of 45 graduate credit hours of course work and dissertation research in addition to any prerequisites that might be necessary. Five of these courses are part of the core, and at least four are concentration courses. The remaining three electives are to be taken outside the concentration with additional methodology courses highly recommended. Required courses generally will be available on an evening or weekend schedule.

Course work in the Ph.D. program has a strong orientation toward research, both applied and theoretical. Where appropriate, course work may be linked to funded university projects or to external agency-based analytical work. Courses emphasize research, writing and presentation skills.

All students must take a comprehensive qualifying examination on the core course requirements and a written or oral comprehensive examination in the concentration and must be approved by the VCU Graduate School for degree candidacy before beginning work on their dissertations.

Curriculum requirements

Credit hours	
15	
3	
3	

PPAD 721 Survey of Applied Research Methods in Public	3
Policy PPAD 722 Survey of Data Analysis Techniques for Public Policy	3
PPAD 780 Synthesizing Seminar in Public Policy	3
Titib too Syndicolesing Schillian in Fuone Foney	J
Public policy concentration	12
Concentration courses (required)	
PPAD 716 Public Policy Economics	3
PPAD 717 Law and Public Policy	3
Concentration electives	6
Select 6 credit hours from the following:	
GVPA 672 Social Equity and Public Policy Analysis (3)	
PPAD 715 U.S. Political Processes and Institutions (3) PPAD 723 Survey Research Methods (3)	
PPAD 726 Advanced Research Design (3	
PPAD 730 Seminar in Health Policy (3)	
PPAD 740 Seminar in Public Management (3)	
PPAD 741 Advanced Theory in Public Administration (3)	
PPAD 791 Topical Seminar (3)	
PPAD 792 Independent Study (3)	
Graduate-level courses in other PPAD concentration areas	
The state of the s	^
Electives outside of the concentration	9
Students will take at least three elective courses outside the concentration with the approval of their advisers. Students may	
take courses at the 500-level or higher from other Ph.D.	
concentration areas (as listed under each concentration) and	
other programs such as homeland security, criminal justice,	
public administration and urban and regional planning within the Wilder School. In addition, students may choose elective courses	
from among the following 3-credit courses:	
from uniong the following 5 create coarses.	
BIOS/STAT 543 Statistical Methods I	3
BIOS/STAT 544 Statistical Methods II	3
ECON 501 Introduction to Econometrics	3
ECON 612 Econometrics	3
ECON 641 Econometric Time-series Analysis	3
ECON 642 Panel and Nonlinear Methods in Econometrics	3
EDUS 711 Qualitative Methods and Analysis	3
ENGL 661 Themes in Interdisciplinary Studies	3
EPID 603 Public Health Policy and Politics	3
GSWS 602 Feminist Research Epistemology and Methods GSWS 622 Women and Public Policy	3
HADM 763 Health Program Evaluation	3
HCPR 701 Health Services Research and Policy I	3
HCPR 702 Health Services Research and Policy II	3
INTL/NURS 514 International Perspectives on Community	3
Health in Developing Countries	
MASC 613 Mass Media and Society	3
MATX 601 Texts and Textuality	3
NURS 770 Quantitative Research Design	3
NURS 772 Qualitative Research Design and Analysis	3
OPER 636/STAT 636 Machine Learning Algorithms	3
SWKD 704 Multiparadigmatic Qualitative Methods and	3
Analysis SWKD 705 Multivarieta Analysis in Social Work and Human	2
SWKD 705 Multivariate Analysis in Social Work and Human Services Research	3
Dissertation research	9 (minimum)
PPAD 898 Dissertation research	
Total graduate credit hours required (minimum)	45
total graduate credit hours required (minimum)	45

Total graduate credit hours required (minimum)

Qualifying examinations

After completing all of the core courses in the Ph.D. program, each student takes a **comprehensive qualifying examination on the core.** The examination is designed to evaluate the mastery students have achieved over the body of knowledge represented by the core. It is intended to measure the ability of students to organize, integrate and creatively apply the knowledge in the field to important problems. Although organized around the courses in the core, the examination is not restricted to material covered in those courses. It is expected that doctoral students will read well beyond the confines of individual courses.

In order to continue in the program, students must attempt the qualifying examination no later than the next regular semester following the completion of the core course requirements. They must pass the exam by the end of the second regular semester after completing the core course requirements. A student may attempt the examination twice. Examinations are offered twice per year.

A student also must take a **written or oral comprehensive examination in the concentration**. The concentration faculty will determine the form of the examination. A student may attempt the examination twice. Each student must pass this second examination before defending a dissertation proposal.

Dissertation

After completing all course work for the concentration and passing both qualifying examinations, students must prepare a dissertation involving original research that contributes to the body of knowledge in the field. A committee approved by the associate dean of the Wilder School supervises the dissertation work. The chair of the committee must be appointed as graduate faculty and be a core or affiliate faculty member of the Ph.D. program.

The first formal step in the dissertation process is the development and defense of a dissertation prospectus that frames the problem to be studied, provides background on the problem, presents a review of relevant literature and justifies the methodology to be used. The defense of the prospectus as well as the completed dissertation must be presented orally and be approved by the dissertation committee. The dissertation defense is conducted in a forum open to other students and faculty.

Sample plan of study

Courses	Credit hours
First year, fall semester	
PPAD 711 Seminar in Public Policy I	3
PPAD 717 Law and Public Policy*	3
PPAD 721 Survey of Applied Research Methods in Public Policy	3
First year, spring semester	
PPAD 712 Seminar in Public Policy II	3
PPAD 716 Public Policy Economics*	3
PPAD 722 Survey of Data Analysis Techniques in Public Policy	3
*Recommended: See concentration listings for required and elective courses.	
First year, summer semester	
Electives (Students on 12-month assistantships are required to register for a minimum of three graduate credit hours.)	variable
Other optional courses	variable
Second year, fall semester	
PPAD 780 Synthesizing Seminar in Public Policy	3
Concentration courses	6
First comprehensive examination on the core	
Second year, spring semester	
Concentration courses and electives	variable

45

PPAD 898 Dissertation research variable
Second comprehensive examination on the concentration
Electives variable

Third year, spring semester

PPAD 898 Dissertation research variable

Total graduate credit hours required (minimum)

45

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in urban and regional policy

Graduate program director

Vacant

Additional contact

Richard F. Huff, Ph.D.

Director of graduate studies, Wilder School

rrhuff@vcu.edu

(804) 828-6837

Program website: wilder.vcu.edu/academic/pubpolicy.html

Refer to the program search feature of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Public Policy and Administration, Doctor of Philosophy (Ph.D.) Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in criminal justice policy

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in public administration

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in public policy

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Public Policy and Administration, Doctor of Philosophy (Ph.D.) with a concentration in urban and regional policy

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Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall	Dec 15 for assistantships	GRE, GMAT, MAT or LSAT
		Jan 30 final date for admission consideration	International applicants TOEFL

Special requirements: master's degree, J.D. or M.D. from an accredited university. Graduate assistantships are only awarded for fall admission. For students wishing to be considered for a limited number of fellowships, materials must be received no later than Dec. 15. Spring admissions are considered exceptions and will be considered on a case-by-case basis

Admission is open to qualified persons without regard to age, physical disability, national origin, race, religion or gender. Admission is competitive. The admission process is intended to assure a reasonable fit between the student's professional and research interests and faculty expertise. Consequently, otherwise qualified applicants may be denied admission.

In addition to the general admission requirements of the VCU Graduate School, applicants to the program must hold a master's degree or a recognized post-baccalaureate degree in one of the professions such as law or medicine from an accredited institution of higher education. A standardized test score, fewer than five years old, is required. Accepted examinations include the Graduate Record Examination, the Graduate Management Admissions Test, the Miller Analogies Test and the Law School Admissions Test. Professional experience is not required, but is considered desirable.

In order to apply for admission to the Ph.D. in Public Policy and Administration program, prospective students must submit:

- 1. A VCU application for graduate study
- 2. Transcripts from all previous colleges or universities
- 3. Scores from a standardized examination (GRE, GMAT, MAT or LSAT)
- 4. Three letters of reference
- 5. A personal statement describing reasons for applying to the program
- 6. A current professional resume

Admission standards

Applicants are evaluated based on the entire admission package; however, the following provides some guidelines for a competitive application.

- Cumulative minimum GPA of 3.6 (on a four-point scale) or equivalent for graduate-level work
- 2. Standardized examination scores
 - a. GRE (preferred):

200-800 scale (old)		130-170 scale (new)	
Quantitative	550+	Quantitative	146+
Verbal	550+	Verbal	156+
Minimum total	1100	Minimum total	302

- b. GMAT: Total score 600+
- c. LSAT: 150+
- d. MAT:
 - i. Scaled score: 400+
 - ii. Percentiles: 70+
- TOEFL: Total score 90+ International applicants must submit the international application and TOEFL scores.
- 5. Three references a minimum of one academic recommendation attesting to the applicant's ability to succeed in doctoral-level work
- Personal statement, resume, curriculum vitae that: some guidelines for a competitive application.
 - a. Clearly articulates the applicant's academic research interests whereby a decision can be made as to the applicant's "fit" with the program

- b. Shows a clear indication of a faculty match and expertise for the applicant's research interests
- c. Displays enthusiasm for the field of public policy and administration
- d. Is well-written and error-free
- 5. All students admitted to the program must have completed prior to admission, or are required to complete during the first year, the following graduate-level courses (or their equivalents):
 - a. Research methods (equivalent of PADM/GVPA/CRJS/URSP 623)
 - b. Statistics (equivalent of PADM 624)
 - c. Public policy, economics or administration/management

The primary admission deadline is Jan. 30 for enrollment to begin the following fall semester; however, materials must be received no later than Dec.15 from those students wishing to be considered for assistantships. A small number of special admissions may be offered (Oct.15 application deadline) for entry the following spring semester; however, these are considered on a case-by-case basis. Assistantships are only offered to those offered full-time admission in the fall. Applicants who wish to be considered for the Oct.15 deadline must include a letter requesting and justifying early admission. If the request for early consideration is not accepted, the application will be held over to the Jan. 30 application deadline for consideration for the following fall admission.

While VCU Graduate School policy allows up to six credit hours of course work to be taken as a nondegree-seeking student prior to formal admission, taking such courses in no way guarantees admission to the program. Also, transfer credit hours are only considered for elective courses. Core courses must be taken at VCU.

Application information is available from the L. Douglas Wilder School of Government and Public Affairs Office of Graduate Advising or the Graduate Admissions Office. International applicant information and materials are available from International Admissions.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program mission

The mission of the Ph.D. in Public Policy and Administration program is to provide students with the knowledge and skills that will enable them to conduct original and scholarly research in academic institutions, governmental agencies and public policy research institutions. The purpose of the program is to prepare students for scholarly and leadership roles in government, universities, research organizations and other settings where knowledge and research skills in public policy and administration are needed. The doctoral program is committed to accomplishing this mission by creating an intellectually vibrant atmosphere for scholarship involving an active faculty from a broad spectrum of academic disciplines and substantial interaction with government agencies and community groups.

Program goals

- 1. Enable students to develop expertise in a particular area of public policy
- Enable students to apply their knowledge and skills in order to conduct original and scholarly research

Student learning outcomes

- Students will be able to expertly apply public policy theories, integrating
 relevant ideas, concepts and approaches from the humanities, social sciences,
 law and public administration to policy analysis, formulation and
 implementation.
- Students will be able to demonstrate mastery of a particular area of public policy.
- Students will be able to formulate appropriate research questions related to public policy and apply methodological knowledge to develop an appropriate research design for a research proposal.
- 4. Students will be able to conduct original and scholarly research on public policy issues.

Degree requirements

The doctoral program is structured around a core curriculum and four areas of concentration. The curriculum is designed to provide a sound intellectual foundation for the pursuit of scholarly research in areas of public policy, urban and regional policy, public administration and criminal justice policy. Students will select a concentration after the first year of study and after passing the comprehensive examination.

In addition to general VCU Graduate School graduation requirements, students take a minimum of 45 graduate credit hours of course work and dissertation research in addition to any prerequisites that might be necessary. Five of these courses are part of the core, and at least four are concentration courses. The remaining three electives are to be taken outside the concentration with additional methodology courses highly recommended. Required courses generally will be available on an evening or weekend schedule.

Course work in the Ph.D. program has a strong orientation toward research, both applied and theoretical. Where appropriate, course work may be linked to funded university projects or to external agency-based analytical work. Courses emphasize research, writing and presentation skills.

All students must take a comprehensive qualifying examination on the core course requirements and a written or oral comprehensive examination in the concentration and must be approved by the VCU Graduate School for degree candidacy before beginning work on their dissertations.

Curriculum requirements

Courses	Credit hours
Core courses (required)	15
PPAD 711 Seminar in Public Policy I	3
PPAD 712 Seminar in Public Policy II	3
PPAD 721 Survey of Applied Research Methods in Public Policy	3
PPAD 722 Survey of Data Analysis Techniques for Public Policy	3
PPAD 780 Synthesizing Seminar in Public Policy	3
Urban planning and policy concentration	12
Concentration courses (required)	
PPAD 716 Public Policy Economics	3
PPAD 750 Seminar in Urban Policy	3
Concentration electives	6
Select 6 credit hours from the following:	
PPAD 791 Topical Seminar (3)	
URSP/GVPA 632 Planning Theory and Processes (3)	
URSP 637 Sustainable Community Development (3)	
URSP 643 Housing Policy (3)	
URSP 651 Transportation Policy and Planning (3)	

URSP 655 Environmental Policy and Planning (3)
URSP 664 Urban Economic Development Policy (3)
URSP 672 Food Systems, Rural Development and Landscape
Conservation (3)

URSP 681 International Urban Policy and Planning (3)

Electives outside of the concentration

from among the following 3-credit courses:

Students will take at least three elective courses outside the concentration with the approval of their advisers. Students may take courses at the 500-level or higher from other Ph.D. concentration areas (as listed under each concentration) and other programs such as homeland security, criminal justice, public administration and urban and regional planning within the Wilder School. In addition, students may choose elective courses

BIOS/STAT 543 Statistical Methods I	3
BIOS/STAT 544 Statistical Methods II	3
ECON 501 Introduction to Econometrics	3
ECON 612 Econometrics	3
ECON 641 Econometric Time-series Analysis	3
ECON 642 Panel and Nonlinear Methods in Econometrics	3
EDUS 711 Qualitative Methods and Analysis	3
ENGL 661 Themes in Interdisciplinary Studies	3
EPID 603 Public Health Policy and Politics	3
GSWS 602 Feminist Research Epistemology and Methods	3
GSWS 622 Women and Public Policy	3
HADM 763 Health Program Evaluation	3
HCPR 701 Health Services Research and Policy I	3
HCPR 702 Health Services Research and Policy II	3
INTL/NURS 514 International Perspectives on Community	3
Health in Developing Countries	
MASC 613 Mass Media and Society	3
MATX 601 Texts and Textuality	3
NURS 770 Quantitative Research Design	3
NURS 772 Qualitative Research Design and Analysis	3
OPER 636/STAT 636 Machine Learning Algorithms	3
SWKD 704 Multiparadigmatic Qualitative Methods and	3
Analysis	
SWKD 705 Multivariate Analysis in Social Work and Human	3
Services Research	

Dissertation research 9 (minimum)

PPAD 898 Dissertation research

Total graduate credit hours required (minimum) 45

Qualifying examinations

After completing all of the core courses in the Ph.D. program, each student takes a **comprehensive qualifying examination on the core.** The examination is designed to evaluate the mastery students have achieved over the body of knowledge represented by the core. It is intended to measure the ability of students to organize, integrate and creatively apply the knowledge in the field to important problems. Although organized around the courses in the core, the examination is not restricted to material covered in those courses. It is expected that doctoral students will read well beyond the confines of individual courses.

In order to continue in the program, students must attempt the qualifying examination no later than the next regular semester following the completion of the core course requirements. They must pass the exam by the end of the second regular semester after completing the core course requirements. A student may attempt the examination twice. Examinations are offered twice per year.

A student also must take a **written or oral comprehensive examination in the concentration**. The concentration faculty will determine the form of the

examination. A student may attempt the examination twice. Each student must pass this second examination before defending a dissertation proposal.

Dissertation

9

After completing all course work for the concentration and passing both qualifying examinations, students must prepare a dissertation involving original research that contributes to the body of knowledge in the field. A committee approved by the associate dean of the Wilder School supervises the dissertation work. The chair of the committee must be appointed as graduate faculty and be a core or affiliate faculty member of the Ph.D. program.

The first formal step in the dissertation process is the development and defense of a dissertation prospectus that frames the problem to be studied, provides background on the problem, presents a review of relevant literature and justifies the methodology to be used. The defense of the prospectus as well as the completed dissertation must be presented orally and be approved by the dissertation committee. The dissertation defense is conducted in a forum open to other students and faculty.

Sample plan of study

Courses	Credit hours
First year, fall semester	
PPAD 711 Seminar in Public Policy I	3
PPAD 717 Law and Public Policy*	3
PPAD 721 Survey of Applied Research Methods in Public Policy	3
First year, spring semester	
PPAD 712 Seminar in Public Policy II	3
PPAD 716 Public Policy Economics*	3
PPAD 722 Survey of Data Analysis Techniques in Public Policy	3
*Recommended: See concentration listings for required and elective courses.	
First year, summer semester	
Electives (Students on 12-month assistantships are required to register for a minimum of three graduate credit hours.)	variable
Other optional courses	variable
Second year, fall semester	
PPAD 780 Synthesizing Seminar in Public Policy	3
Concentration courses	6
First comprehensive examination on the core	
Second year, spring semester	
Concentration courses and electives	variable
Third year, fall semester	
PPAD 898 Dissertation research	variable
Second comprehensive examination on the concentration	
Electives	variable
Third year, spring semester	
PPAD 898 Dissertation research	variable
Total graduate credit hours required (minimum)	45

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements





2014-15 Graduate and Professional Programs Bulletin

School of Medicine

The School of Medicine of the then Medical College of Virginia opened on November 5, 1838, as the medical department of Hampden-Sydney College. Full-time clinical faculty members were first appointed in 1928, and improved facilities became available between 1936 and 1941 with the completion of the 600-bed West Hospital, A. D. Williams Clinic and Hunton Hall dormitory, located on the current site of the Main Hospital building. Growth in faculty students and facilities continued after World War II, leading to the development of todays academic health center.

Hospital facilities on the MCV Campus include both in-patient and out-patient facilities. MCV Hospitals of the VCU Health System is licensed for 902 beds. In addition, the hospital at the McGuire Veterans Affairs Medical Center (600 beds) provides excellent patient care, training and research opportunities for the School of Medicine through its affiliation programs.

In the School of Medicine, advanced degree programs are coordinated through the Office of the Associate Dean for Graduate Education, who acts for the dean on all issues related to administration of advanced degree programs. Each advanced-degree program is represented by a faculty member who serves as director for graduate programs. Directors are appointed either by the chair of the department offering graduate degrees or, in the case of interdisciplinary programs, by the dean in consultation with the chairs of participating departments. The directors of graduate programs act on behalf of the programs and hold the responsibility and authority to represent the respective department(s) and their faculty to the school.

Administration

1201 East Marshall Street

P.O. Box 980565

Richmond, Virginia 23298-0565

www.medschool.vcu.edu

Jerome F. Strauss III

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Samantha Buery-Joyner

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Pemra Cetin

Assistant Dean for Student Affairs and Financial Aid

Craig E. Cheifetz

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Jan F. Chlebowski

Associate Dean for Graduate Education

Ralph Ron Clark III

Associate Dean for Clinical Activities

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Senior Associate Dean for Faculty Affairs

Louis DeFelice

Assistant Dean for Advanced Degree Administration

Susan DiGiovanni Assistant Dean for Pre-Clinical Medical Education

Alicia Freedy
Assistant Dean for Curriculum – Inova Campus

Thomas Holland

Associate Dean for Alumni Relations and Development

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Associate Dean for Graduate Medical Education

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Gene Peterson

Associate Dean for Patient Safety and Quality Care

Paul Peterson

Assistant Dean for Administration

Michael Ryan

Assistant Dean for Clinical Medical Education

Joy Sanders

Assistant Dean for Development and Alumni Affairs

Amy Sebring

Senior Associate Dean for Finance and Administration

Vacant

Assistant Dean for Faculty Development

John Ward

Senior Associate Dean for Clinical Affairs

Michelle Whitehurst-Cook

Associate Professor of Family Medicine and Associate Dean for Admissions

Christopher Woleben

Associate Dean for Student Affairs

Isaac K. Wood

Senior Associate Dean for Medical Education and Student Affairs

Accreditation

Genetic counseling (master's degree)

American Board of Genetic Counseling

Medical physics

Commission on Accreditation of Medical Physics Educational Programs

Medicine (M.D.)

Liaison Committee on Medical Education

Public health (master's degree)

Council on Education in Public Health

Mission statement

The mission of the VCU School of Medicine is to provide preeminent education to physicians and scientists in order to improve the quality of health care for humanity. Through innovative, scholarly activity and a diverse educational context, the school seeks to create and apply new knowledge, and to provide and continuously improve systems of medical and science education. Furthermore, the mission includes the development of more effective health care practices to address the needs of diverse populations and to provide distinguished leadership in the advancement of medicine and science.

The primary aim of the School of Medicine is to provide an academic environment appropriate for the education of its students, including undergraduate medical students, advanced-degree (graduate) students and graduate physician house officers, as well as continuing education directed toward the needs of practicing physicians. In the classroom, laboratory, clinic and hospital, the faculty and students are brought together in teaching-learning experiences that promote scientific scholarship and personal growth in knowledge and professional skills applicable to careers in a diverse workplace environment.

The School of Medicine and its faculty have vested responsibilities for the advancement of knowledge through research and for service to the community through application of skills in biomedical knowledge, health care leadership and patient care. Therefore, the school shares with teaching the interdependent and almost inseparable objectives of research and service.

The School of Medicine is located on the MCV Campus of Virginia Commonwealth University.

For comprehensive information on the School of Medicine departments, programs and faculty, please go to the school Web site at www.medschool.vcu.edu.

Faculty and facilities

The School of Medicine consists of 700 full-time faculty, including affiliates, assisted by 630 residents and fellows and more than 700 clinical voluntary faculty.

Programs of instruction and research are conducted on campus, at the McGuire Veterans Affairs Medical Center and at affiliated hospitals in an effort to expose the students to the variety of clinical disorders encountered in the eastern U.S. The School of Medicine has established a geographically separate campus at the Inova Fairfax Hospital. Each year, 24 third-year students take all their clinical clerkships at Inova Fairfax Hospital. Their fourth year elective program also is based at the Inova Fairfax Hospital.

Health policies

Virginia Commonwealth University School of Medicine requires that all medical students carry active health insurance. Health insurance benefits must be equal to or greater than those provided by the university health carrier. In addition, it is required that all students complete required immunizations within six months of matriculation and have repeat tuberculosis screening performed prior to the third-year clerkships. For details related to these policies, please visit www.medschool.vcu.edu/studentactivities.

The School of Medicine requires that all students enrolled in the graduate academic programs administered by the school hold active health insurance coverage. This requirement applies to students at all degree categories: doctoral, master's and certificate. Compliance is monitored by administrative offices of the school and departments. Failure to comply with this requirement is grounds for dismissal.

Graduate programs

A complete listing of advanced degree programs including links to departments, programs, contact information and application requirements can be found at www.medschool.vcu.edu/audience/prospective.html.

Graduate programs offering Master of Science and doctoral training in the School of Medicine include:

- · Anatomy and Neurobiology
- Biochemistry
- · Biostatistics
- Epidemiology (doctoral training only)
- · Human genetics
- · Medical physics
- Microbiology and immunology
- Pathology (doctoral training only)
- · Pharmacology and toxicology
- Physiology

The Department of Human and Molecular Genetics offers a Master of Science in Genetic Counseling (M.S.) and the Department of Epidemiology and Community Health offers the Master of Public Health (M.P.H.) degree. Both of these degree programs are accredited by the appropriate national organizations.

The Department of Human and Molecular Genetics offers a combined degree program that pairs the M.S. in Genetic Counseling and the Ph.D. in Human Genetics. The school partners with the School of Allied Health Professions to offer combined Anatomy and Neurobiology/physical therapy track and Physiology/physical therapy track Ph.D. programs.

Recognizing that graduate education should prepare students for a variety of career options, and that developments in the basic sciences have expanded the breadth of scholarship, the school has developed approaches to interdisciplinary education, particularly in the areas of neuroscience, molecular biology and genetics, immunology, and structural biology.

A two-semester post-baccalaureate certificate program offering training for students seeking admission to professional school (i.e., School of Medicine, School of Dentistry) is available as the Pre-medical Graduate Health Sciences Certificate.

Application and admission to graduate programs

Application forms and instructions for applying to all graduate programs are available on the Graduate School Web site at www.graduate.vcu.edu.

- The purpose of admission requirements and procedures is to ensure selection of competent students whose motivation, ability, education and character qualify them for graduate study in preparation for a career in science.
- The following credentials constitute an application and should be sent to Virginia Commonwealth University, Graduate School, Richmond, VA 23284-3051.
 - a. Application for admission on a form available to the applicant from
 either the VCU Graduate School or the VCU Office of International
 Education. A fee in the form of a check or money order (payable to
 VCU), must accompany the application. The fee cannot be returned nor
 credited toward tuition payment.
 - Official transcripts of all undergraduate and graduate work sent directly from college or university registrars to the Graduate School.
 - c. Letters of recommendation from three present or former teachers or others the applicant believes to be qualified to evaluate fitness to engage in graduate study for the degree in the field of choice.
 - A personal statement from the applicant summarizing motivation, education and aims in pursuing graduate study.
 - e. Verbal, quantitative, and analytical portions of the Graduate Record
 Examination are required. Medical College Admission Test or Dental
 Aptitude Test may be acceptable in lieu of the GRE for selected
 programs.
 - f. International applicants for whom English is a foreign language must meet departmental admission requirements for performance on the TOEFL (Test of English as a Foreign Language). See section on international students in the Graduate Studies at VCU section of this Web site.
- 3. Acceptance of an applicant is based upon the recommendation of the director of graduate programs of the relevant program.

While most students matriculate in the fall semester, arrangements may be made to initiate graduate work at other times during the academic year.

Ph.D. programs

General requirements for graduate degrees

- All full-time graduate students are expected to register for a minimum of 15 credit hours for the fall and spring semesters and six credit hours for the summer session. This requirement includes research. As an example, when students are registered for 10 credits in formal courses, they are expected to undertake five credits of research under the direction of their adviser or any approved faculty member. Research courses shall be graded as S (satisfactory), U (unsatisfactory) or F (fail). Registration for one credit hour is permitted only with prior permission.
- 2. Students are required to remain in good academic standing through the course of their degree program. Unsatisfactory student performance includes:
 - a. The assignment of a grade of U, D or F in any course
 - b. Failure to maintain a cumulative GPA of 3.0 or greater
 - c. Failure to pass the written or oral comprehensive examination
 - d. Failure to pass the final examination

A student whose performance is unsatisfactory must obtain the approval of the MCV Campus Graduate Committee to gain permission for continuing in the graduate program. The committee elicits the recommendation of the department/program (as represented by the director of graduate studies of the appropriate program) and, as appropriate, the student's adviser in making a determination. Unsatisfactory performance also constitutes grounds for the termination of financial assistance to the student.

3. Students may not take the comprehensive examination for the Ph.D. degree if their overall GPA is less than 3.0 or if the GPA for courses within the major department is below 3.0. Students may not take the final oral examination for the M.S. or Ph.D. degree if their overall GPA is below 3.0. The examining body for the administration of the comprehensive examinations and the final examination is the student advisory committee. For the oral comprehensive examination for Ph.D. students and the final examinations for M.S. students, the body is supplemented by the addition of a representative of the MCV

- Campus Graduate Committee who chairs the examining body. The representative must be a member of the graduate faculty and is appointed by the chair of the MCV Campus Graduate Committee. The representative holds the responsibility for compliance with protocols appropriate to the examination, including the equitable treatment of the candidate.
- 4. Copies of the thesis/dissertation consistent with university standards shall be provided to the members of the student's advisory committee three weeks or more before the date of the defense of the thesis/dissertation. Following acceptance of the thesis/dissertation defense schedule by the committee, the student must submit a copy of the thesis/dissertation and a request for scheduling of the final examination to the chair of the MCV Campus Graduate Committee a minimum of ten working days in advance of the examination date. After passing the final examination, it shall be the responsibility of the candidate to present to the dean's office the approved original thesis/dissertation plus the minimum required number of copies (three for M.S., four for Ph.D.) in final form suitable for binding. In consultation with the office staff, the candidate shall be responsible for the binding and the processing of the thesis through VCU Libraries and for the payment of all charges for these services.
- A degree is granted only after all requirements have been fulfilled, including payment of all fees to the university, and after submission of the copies of the thesis for binding.
- 6. VCU currently requires registration for a defined credit hour level during both the didactic and research phases of advanced degree training. For programs requiring the preparation of a thesis or dissertation, there is therefore no obligatory linkage between the accumulation of credit hours and an expectation that a degree be awarded.

As a guide to monitoring the timely completion of the degree within the present enrollment framework, the accumulation of 80 credit hours for a M.S. degree and 180 credit hours for a Ph.D. degree can be taken as a reasonable measure. These credit hour totals refer to degree programs requiring the preparation of a thesis or dissertation. Unless explicitly stated, the figures cited above apply to Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) programs offered by the School of Medicine.

Change in academic program

A student in good standing who is nearing the completion of their degree program may wish to be considered for admission to a more advanced degree administered by the School of Medicine. On more rare occasions, a student may wish to leave (withdraw) from the program in which he/she is currently enrolled and join another program at the same academic level in the School of Medicine.

In all cases the student seeking the change shall submit a hard-copy version of the VCU Application for Graduate School to the Office of Graduate Education in the School of Medicine. The one-page application must be accompanied by a letter written by the student providing the rationale for the change and the program into which the student is seeking admission. The Office of Graduate Education will review the application and the record of the student and then alert the department to the interest of the student if deemed appropriate. Students who are not making satisfactory academic programs (i.e. a student who is not in good academic standing) in a given program would not be considered candidates for a program change. In the absence of prior approval from the Office of the Dean, neither an "application" by a student directly to a program nor the "acceptance" of a student by a program will be valid. Neither students nor programs may initiate admission to a program in the School of Medicine in the absence of the approval by the Office of Graduate Education acting in consultation with the MCV Campus Graduate Committee.

The above applies to all changes in program (e.g. certificate level to master's, master's to Ph.D., program change at the same degree level).

The student adviser and advisory committee

Students receive guidance and counsel from the director of graduate programs for the appropriate program prior to appointment of the permanent adviser. The permanent adviser holds the primary responsibility for monitoring the development of the student in the program and providing the appropriate guidance and counsel essential to the scholarly development of the student.

An advisory committee, appointed shortly after the permanent adviser is appointed, serves as both an examining and consultative body, functioning to assist the development of the student. Committee members hold a special responsibility as a source of counsel for each student.

- 1. Each student shall have an adviser and an advisory committee.
- 2. Appointment of the adviser:
 - The initial adviser will be the director of the graduate program or his/her designee prior to appointment of the permanent adviser.
 - b. A permanent adviser shall be appointed from the graduate faculty by the chair of the MCV Campus Graduate Committee upon recommendation of the chair of the student's major department. Appointment should be made no later than the beginning of the fall semester following matriculation. A change in the permanent adviser may be made by the chair of the MCV Campus Graduate Committee upon recommendation of the chair of the major department.

3. Duties of the adviser:

- The adviser shall, with the student's advisory committee, have responsibility for guiding the student's academic program.
- b. The adviser shall develop a plan for the student's didactic program with the student.
- c. The adviser shall, on the basis of the proposed didactic and scholarly program for the student, identify members of the faculty to comprise the student's advisory committee and elicit their agreement to serve, the adviser serving as the chair of the committee.
- d. The adviser shall supervise the student's research work and dissertation preparation and be one of the examiners of the dissertation (Ph.D.).
- e. At the close of the spring semester, the adviser shall submit to the program director or the chair of the MCV Campus Graduate Committee a report covering the progress of the student. Copies of the report should be provided to the student and the membership of the student advisory committee by the adviser.

4. The student's advisory committee:

- a. The student's advisory committee shall be appointed no later than the end of the fall semester of the second year after matriculation by the chair of the MCV Campus Graduate Committee, upon recommendation of the student's adviser, review by the graduate program director and recommendation of the chair of the department of the permanent adviser. Appointment of the student advisory committee must be done within three months of the appointment of the permanent adviser and prior to the administration of comprehensive (or final) examinations. The composition of the advisory committee shall be such that significant areas of the student's scholarly program are represented in the expertise of the faculty members.
 - The committee for the Ph.D. candidate shall consist of a minimum
 of five members as follows: the student's adviser; two other
 members of the graduate faculty of the department/program in
 which the student is enrolled; and at least two other members of the
 graduate faculty from departments other than the one in which the
 student is enrolled (where feasible, from two different
 departments).
 - A faculty member who is not a member of the graduate faculty may be appointed to a student advisory committee if approved by the MCV Campus Graduate Committee. Appointment is made by the dean of the Graduate School.
 - iii. The student adviser is identified as the chair of the Student Advisory Committee as the default option. This creates the potential for a conflict of interest with respect to the management of the research project of the student. As a means of exploring options to existing protocol, the Student Advisory Committee has the option of electing a member of the committee to serve as the chair. Should this be the case, the revised committee structure will be submitted to the graduate program director for review and approval.
- b. Duties of the student's advisory committee:
 - The advisory committee functions as an advisory body to ensure that timely progress toward degree completion is being achieved, as an examining body participating as appropriate for the intended degree in written qualifying examinations and conducting the oral

- qualifying examination and final examination, and as a consultative body to provide scholarly counsel.
- ii. The student's advisory committee shall work with the student's adviser in guiding the student's graduate program and shall meet at least annually. It is strongly recommended that the advisory committee meet with the student prior to administration of the comprehensive examination(s) by the committee.
- iii. The student's advisory committee shall recommend and approve a degree program (including foreign language if applicable) for the student as soon as it is practical. The proposed program should be filed with the chair of the MCV Campus Graduate Committee no later than the third semester of study.
- The student's advisory committee shall conduct the oral comprehensive and final examination.

Doctor of Philosophy

- Advanced graduate study leading to the Doctor of Philosophy degree is
 offered in the departments of Anatomy and Neurobiology, Biochemistry and
 Molecular Biology, Biostatistics, Epidemiology and Community Health,
 Human and Molecular Genetics, Microbiology and Immunology,
 Pharmacology and Toxicology, and Physiology and Biophysics. The
 departments of Radiology and Radiation Oncology administer the Ph.D.
 degree in medical physics.
- A minimum of 30 credit hours exclusive of research credits is generally required. In practice, a minimum of four years of study, including research, is necessary to complete all requirements.
- 3. For all Ph.D. programs, a period of residence of at least two consecutive semesters is required. In the context of Ph.D. training, "residence" refers to full-time enrollment, equivalent to enrollment of nine or more credit hours in a given academic term. The School of Medicine recommends that doctoral students maintain "residency" status for one academic year (fall and spring semesters), usually during the initial year of study. This recommendation is to ensure that the didactic component of training is not prolonged. Students should register in each academic term as a means of ensuring that timely progress toward degree completion is achieved. The specific requirements for residency will be detailed by the individual programs. A time limit of seven calendar years, beginning at the time of first registration, is placed on work to be credited toward the doctor of philosophy degree.

Admission to candidacy

The development of the individual as an independent research scientist is a critical component of the Ph.D. degree. The potential for such development is assessed on the basis of both mastery of subject matter and research competency as judged in the context of written and oral examinations administered at the level of department or program. Students are admitted to candidacy by the dean on the basis of completing examinations as required and the recommendation of the faculty adviser, student advisory committee and graduate program director.

Individual Development Plan

In order to assist trainees and advisers in the efficient completion of degree training and considered identification of a strategy for career development once the degree has been awarded, all graduate students will be required to create an Individual Development Plan. The IDP will have two components, both of which are critical to the achievement of a successful career outcome.

The first component will address the action plan for the research project over the next 12-month period. This should take a form analogous to the "Specific Aims" section of an NIH grant proposal, identifying key experimental objectives. In addition, objectives in professional development (e.g. attendance at a national meeting, delivery of a seminar) are also identified. The student adviser works with the student to develop this component of the IDP. The IDP is then used as a resource for consideration and comment by the Student Advisory Committee in the annual meeting with the student.

The second component of the IDP will explore the long-term career objectives of the student. "Career objectives" must look beyond a period of postdoctoral training. The nature of this component of the plan will vary widely depending on the individual. For the individual who has identified a particular career position, the IDP might, for example, seek to gain a more complete understanding of the requirements of such a position or the identification of "soft" skills critical to

success in the position. If undecided, the individual might explore the variety of career options for which the biomedical science degree can serve as a foundation. While the student's research adviser can play a role in developing this component of the plan, students should be encouraged to identify a mentor who can provide critical, concrete and confidential counsel to the student.

The use of the career planning tool distributed by the American Association for the Advancement of Science as "myIDP" to both guide the creation of a plan and convert entries into a report format is strongly recommended. A copy of the IDP will be submitted to the graduate program director in June of each year. The plans will be forwarded to the School of Medicine Office of Graduate Education. A record of the receipt of the IDP is placed in the student file.

Progress to degree completion

The timely completion of advanced degrees is in the best interests of the student. In order to ensure that impediments to degree completion are addressed at an early stage the Office of Graduate Education in the School of Medicine houses a record of the meetings of the Student Advisory Committee in GradTrak. On an annual basis, programs will provide to the Office of Graduate Education a record of the date(s) on which the Student Advisory Committee has met, a copy of the minutes of the meeting and/or the memorandum provided to the student describing the progress made to degree completion, along with the expression of compliments, concerns and corrective action as appropriate. A copy of the IDP prepared by the student accompanies the report of the actions of the Student Advisory Committee meeting.

While recognizing that the research enterprise is subject to unknowns including unanticipated problems in the successful conduct of experiments, the duration of training should not be unduly extended as a consequence. The adviser and Student Advisory Committee have a responsibility to ensure that the scope of the research project is such that a doctoral degree can be completed in five to six years. The Student Advisory Committee plays a central role to ensure that the treatment of the student is equitable and that the student displays an appropriate effort, commitment and development.

Advisers have an obligation to ensure that in circumstances where student performance is not deemed to be satisfactory, the presence of the potential problem is communicated to the Student Advisory Committee and the program director. The interests of the adviser and student are best served when the evaluation of the situation is made with multiple inputs. In cases where a problem does exist, communication of the substandard performance, along with a course and timeline for remediation, should be formally communicated to the student as soon as possible. Documenting the existence of problem areas should not await the end of a semester or be delayed until a scheduled assessment is to take place.

If the student has not completed all degree requirements at the end of 15 semesters (inclusive of summer terms) of study, the adviser will provide specific information on the timeline for completion of the degree and submit to the Student Advisory Committee and the graduate program director (with a copy forwarded to the Office of Graduate Education) for review and action if warranted.

Comprehensive examinations

In order to advance to doctoral candidacy, the student must pass both written and oral comprehensive examinations. The written examination(s) generally focus(es) on the subject matter deemed critical as a foundation in the particular program. The written examination is largely based on material covered in required course work and its application to theoretical and practical problems. The oral examination, which follows successful completion of the written examination(s), is administered to assess the ability of the candidate to integrate information and display an appropriate mastery of problem-solving capabilities.

- To advance to candidacy, the student shall take written and oral examinations
 designed to determine the potential of the individual for development as an
 independent research scientist. Advancement to candidacy should preferably
 take place prior to initiating the third academic year in the program. The
 written examination is administered by the student's department/program. In
 the event of failure of the written comprehensive examination, the student,
 with the approval of the MCV Campus Graduate Committee, may be
 permitted to repeat the written examination.
- After passing the written examination(s), the student is eligible for the oral
 examination. The oral examination is conducted by the student's advisory
 committee and is chaired by a graduate faculty member representing the
 MCV Campus Graduate Committee who serves as a voting member of the
 examining committee. The oral examination is to be administered no later

than six months after passing the written examination. (Departments/programs may require a shorter interval.)

- 3. The oral examination is scheduled through the Office of Graduate Education. An announcement of the candidate's name, department/program and the time and place of the examination shall be posted at least 10 working days in advance of the examination. If a written document prepared by the candidate is a component of the examination, the document shall be provided to the members of the examining committee at least 10 working days in advance of the examination. The oral comprehensive examination is open to all members of the faculty. Faculty members in attendance may ask questions of the candidate, but their questions shall not be presented until after the advisory committee has completed its questions. Faculty members other than those on the advisory committee shall not vote on the success or failure of the candidate. If a student fails the oral examination, the student may be reexamined with the approval of the MCV Campus Graduate Committee.
- 4. A favorable vote of the examining committee (all members of body being required to vote) with no more than one negative vote, is required to pass the examination. Members of the examining committee must vote on the performance as either pass or fail.
- The oral examination must be completed successfully at least six months before submission of the dissertation.

Dissertation research

- The student must conduct a substantial original investigation under the supervision of the permanent adviser and prepare a dissertation reporting the results of this research and analyzing its significance in relation to existing scientific knowledge.
- 2. The body of experimental work to be incorporated into the dissertation is subject to the approval of the membership of the student advisory committee. The advisory committee should, therefore, be formally consulted as the research project nears completion to ensure that there is agreement with respect to the material deemed necessary and sufficient for incorporation into the dissertation. Such consultation will normally occur in the form of a meeting of the advisory committee with the student. The faculty adviser has a responsibility to advise the student when the meeting of the advisory committee for this purpose should take place.
- 3. The dissertation is prepared in an acceptable form and style with the counsel of the faculty adviser. The faculty adviser determines when the dissertation document can serve as the basis for the final oral examination (or dissertation defense). With the approval of the faculty adviser, the final oral examination by the advisory committee is scheduled and the dissertation document is distributed to the advisory committee. Distribution of the dissertation document to the advisory committee will usually occur at least ten working days in advance of the final oral examination. The Office of Graduate Education is informed of the scheduling of the final oral examination ten working days in advance of the examination. The Office of Graduate Education will then post an announcement of the final oral examination to include the name and department of the candidate together with the title of the dissertation and the day, place and time of the final oral examination.
- The final oral examination is conducted by the student advisory committee at a specified time and place, is chaired by the faculty adviser and is open to all members of the faculty. The subject matter of the examination is limited to the content of the candidate's dissertation and related areas. A favorable vote of the advisory committee with no more than one negative vote shall be required to indicate that the candidate has passed the final oral examination. All advisory committee members must vote. The outcome of the final oral examination is reported to the Office of Graduate Education. If the examination is not passed, the Student Advisory Committee must recommend a course of action for the student. The committee might, for example, recommend that a re-examination be scheduled, or that a major revision of the dissertation (including added data collection and/or analysis) be required prior to rescheduling of the examination, or that the student be terminated from the program or other action as deemed appropriate by the committee. A majority of the committee membership must concur in the recommended course of action. The recommendation must be communicated in writing to the appropriate graduate program director for approval within five working days of the examination. The program, acting through the graduate program director, shall accept the recommendation of the committee or determine an alternative within an additional five working days. The course of action

approved by the program will be communicated in writing to the student by the graduate program director. The graduate program director shall inform the Office of Graduate Education of the School of Medicine in writing as to the action taken.

If a re-examination is the recommended course of action, a representative of the MCV Campus Graduate Committee will be appointed to serve as the chair of the examining committee.

5. The student advisory committee approves the dissertation document as acceptable following the final oral examination. Approval of the dissertation as acceptable is indicated by the signature of all members of the advisory committee on the signature page of the dissertation. Approval of the dissertation by the advisory committee must be unanimous.

Termination of enrollment

The university reserves the right to terminate the enrollment of any student for unlawful, disorderly or immoral conduct or for persistent failure to fulfill the purposes for which he or she was matriculated.

A student enrolled in a graduate program under the supervision of the MCV Campus Graduate Committee may be dismissed from the school in which he is enrolled for failure to meet academic requirements prescribed by his school or failure to exhibit the attitudes and skills deemed necessary to function within his chosen scientific discipline.

Any action by a graduate student in a program under the supervision of the MCV Campus Graduate Committee considered to be unprofessional conduct shall constitute cause for disciplinary action.

Unprofessional conduct includes, but is not limited to:

- Fraud or deceit in gaining admission to the university, i.e., false or obviously misleading representations on the admission application
- 2. An act that violates the established legal standards regarding conduct of one person toward society (i.e., stealing, lying, cheating and slander)
- 3. Conviction of a felony involving moral turpitude
- 4. Plagiarism or other scientific misconduct

Master's programs

Advanced graduate study leading to the Master of Science degree is offered in the departments of Anatomy and Neurobiology, Biochemistry and Molecular Biology, Biostatistics, Human and Molecular Genetics, Microbiology and Immunology, Pharmacology and Toxicology, and Physiology and Biophysics. The Department of Epidemiology and Community Health offers the Master of Public Health degree; the Department of Human and Molecular Genetics also offers the Master of Science degree in genetic counseling; and the departments of Radiology and Radiation Oncology administer the Master of Science degree in medical physics.

General requirements for graduate degrees

- All full-time graduate students are expected to register for a minimum of five credit hours for the fall and spring semesters and six credit hours for the summer session. This requirement includes research. As an example, when students are registered for 10 credits in formal courses, they are expected to undertake five credits of research under the direction of their adviser or any approved faculty member. Research courses shall be graded as S (satisfactory), U (unsatisfactory) or F (fail). Registration for one credit hour is permitted only with prior permission.
- Students are required to remain in good academic standing through the course of their degree program. Unsatisfactory student performance includes:
 - a. The assignment of a grade of U, D or F in any course
 - b. Failure to maintain a cumulative GPA of 2.5 or greater
 - c. Failure to pass the written or oral comprehensive examination
 - d. Failure to pass the final examination

A student whose performance is unsatisfactory must obtain the approval of the MCV Campus Graduate Committee to gain permission for continuing in the graduate program. The committee elicits the recommendation of the department/program (as represented by the director of graduate studies of the appropriate program) and, as

appropriate, the student's adviser in making a determination. Unsatisfactory performance also constitutes grounds for the termination of financial assistance to the student.

- 3. Students may not take the comprehensive examination for the Ph.D. degree if their overall GPA is less than 2.5 or if the GPA for courses within the major department is below 3.0. Students may not take the final oral examination for the M.S. or Ph.D. degree if their overall GPA is below 3.0. The examining body for the administration of the comprehensive examinations and the final examination is the student advisory committee. For the oral comprehensive examination for Ph.D. students and the final examinations for M.S. students, the body is supplemented by the addition of a representative of the MCV Campus Graduate Committee who chairs the examining body. The representative must be a member of the graduate faculty and is appointed by the chair of the MCV Campus Graduate Committee. The representative holds the responsibility for compliance with protocols appropriate to the examination, including the equitable treatment of the candidate.
- 4. Copies of the thesis/dissertation consistent with university standards shall be provided to the members of the student's advisory committee three weeks or more before the date of the defense of the thesis/dissertation. Following acceptance of the thesis/dissertation defense schedule by the committee, the student must submit a copy of the thesis/dissertation and a request for scheduling of the final examination to the chair of the MCV Campus Graduate Committee a minimum of ten working days in advance of the examination date. After passing the final examination, it shall be the responsibility of the candidate to present to the dean's office the approved original thesis/dissertation plus the minimum required number of copies (three for M.S., four for Ph.D.) in final form suitable for binding. In consultation with the office staff, the candidate shall be responsible for the binding and the processing of the thesis through VCU Libraries and for the payment of all charges for these services.
- A degree is granted only after all requirements have been fulfilled, including payment of all fees to the university, and after submission of the copies of the thesis for binding.
- 6. VCU currently requires registration for a defined credit hour level during both the didactic and research phases of advanced degree training. For programs requiring the preparation of a thesis or dissertation, there is therefore no obligatory linkage between the accumulation of credit hours and an expectation that a degree be awarded.

As a guide to monitoring the timely completion of the degree within the present enrollment framework, the accumulation of 80 credit hours for a M.S. degree and 180 credit hours for a Ph.D. degree can be taken as a reasonable measure. These credit hour totals refer to degree programs requiring the preparation of a thesis or dissertation. Unless explicitly stated, the figures cited above apply to Master of Science and Doctor of Philosophy programs offered by the School of Medicine.

Change in academic program

A student in good standing who is nearing the completion of their degree program may wish to be considered for admission to a more advanced degree administered by the School of Medicine. On more rare occasions, a student may wish to leave (withdraw) from the program in which he/she is currently enrolled and join another program at the same academic level in the School of Medicine.

In all cases the student seeking the change shall submit a hard-copy version of the VCU Application for Graduate School to the Office of Graduate Education in the School of Medicine. The one-page application must be accompanied by a letter written by the student providing the rationale for the change and the program into which the student is seeking admission. The Office of Graduate Education will review the application and the record of the student and then alert the department to the interest of the student if deemed appropriate. Students who are not making satisfactory academic progress (i.e. a student who is not in good academic standing) in a given program would not be considered candidates for a program change. In the absence of prior approval from the Office of the Dean, neither an "application" by a student directly to a program nor the "acceptance" of a student by a program will be valid. Neither students nor programs may initiate admission to a program in the School of Medicine in the absence of the approval by the Office of Graduate Education acting in consultation with the MCV Campus Graduate Committee.

The above applies to all changes in program (e.g. certificate level to master's, master's to Ph.D., program change at the same degree level).

The student adviser and advisory committee

Students receive guidance and counsel from the director of graduate programs for the appropriate program prior to appointment of the permanent adviser. The permanent adviser holds the primary responsibility for monitoring the development of the student in the program and providing the appropriate guidance and counsel essential to the scholarly development of the student.

An advisory committee, appointed shortly after the permanent adviser is appointed, serves as both an examining and consultative body, functioning to assist the development of the student. Committee members hold a special responsibility as a source of counsel for each student.

- 1. Each student shall have an adviser and an advisory committee.
- 2. Appointment of the adviser:
 - The initial adviser will be the director of the graduate program or his/her designee prior to appointment of the permanent adviser.
 - b. A permanent adviser shall be appointed from the graduate faculty by the chair of the MCV Campus Graduate Committee upon recommendation of the chair of the student's major department. Appointment should be made no later than the beginning of the fall semester following matriculation. A change in the permanent adviser may be made by the chair of the MCV Campus Graduate Committee upon recommendation of the chair of the major department.
- 3. Duties of the adviser:
 - a. The adviser shall, with the student's advisory committee, have responsibility for guiding the student's academic program.
 - b. The adviser shall develop a plan for the student's didactic program with the student.
 - c. The adviser shall, on the basis of the proposed didactic and scholarly program for the student, identify members of the faculty to comprise the student's advisory committee and elicit their agreement to serve, the adviser serving as the chair of the committee.
 - d. The adviser shall supervise the student's research work and thesis preparation and be one of the examiners of the thesis (M.S.).
 - e. At the close of the spring semester, the adviser shall submit to the program director or the chair of the MCV Campus Graduate Committee a report covering the progress of the student. Copies of the report should be provided to the student and the membership of the student advisory committee by the adviser.
- 4. The student's advisory committee:
 - a. The student's advisory committee shall be appointed no later than the end of the fall semester of the second year after matriculation by the chair of the MCV Campus Graduate Committee, upon recommendation of the student's adviser, review by the graduate program director and recommendation of the chair of the department of the permanent adviser. Appointment of the student advisory committee must be done within three months of the appointment of the permanent adviser and prior to the administration of comprehensive (or final) examinations. The composition of the advisory committee shall be such that significant areas of the student's scholarly program are represented in the expertise of the faculty members.
 - i. The committee for the M.S. candidate shall consist of a minimum of three members as follows: the student's adviser (who serves as chair of the committee); one other member of the graduate faculty of the department/program in which the student is enrolled; and one other member of the graduate faculty from a department other than the one in which the student is enrolled.
 - A faculty member who is not a member of the graduate faculty may be appointed to a student advisory committee if approved by the MCV Campus Graduate Committee. Appointment is made by the dean, School of Graduate Studies.
 - b. Duties of the student's advisory committee:
 - The advisory committee functions as an advisory body to ensure that timely progress toward degree completion is being achieved, as an examining body participating as appropriate for the intended degree in written qualifying examinations and conducting the oral

- qualifying examination and final examination, and as a consultative body to provide scholarly counsel.
- ii. The student's advisory committee shall work with the student's adviser in guiding the student's graduate program and shall meet at least annually. It is strongly recommended that the advisory committee meet with the student prior to administration of the comprehensive examination(s) by the committee.
- iii. The student's advisory committee shall recommend and approve a degree program (including foreign language if applicable) for the student as soon as it is practical. The proposed program should be filed with the chair of the MCV Campus Graduate Committee no later than the third semester of study.
- The student's advisory committee shall conduct the oral comprehensive and final examination.

Master of Science

- Advanced graduate study leading to the Master of Science degree is offered in the departments of Anatomy and Neurobiology, Biochemistry and Molecular Biology, Biostatistics, Human and Molecular Genetics, Microbiology and Immunology, Pharmacology and Toxicology, and Physiology and Biophysics. The Department of Epidemiology and Community Health offers the Master of Public Health degree; the Department of Human and Molecular Genetics also offers the Master of Science degree in genetic counseling; and the departments of Radiology and Radiation Oncology administer the Master of Science degree in medical physics.
- 2. A minimum of 24 semester course hours is required, exclusive of research credits. In practice, it is found that two years of study are usually necessary to complete the requirements. A time limit of five calendar years, beginning at the time of first registration, is placed on work to be credited toward the Master of Science degree. Generally a maximum of one-third of the hours required for a master's degree may be transferred from another VCU program or outside institution and applied toward the degree upon recommendation of the student's director of graduate programs with the concurrence by the chair of the MCV Campus Graduate Committee.
- 3. Each student must conduct an original investigation under the supervision of the permanent adviser, prepare a thesis reporting the results of this research and analyze its significance in relation to existing scientific knowledge. This study is reported in a thesis prepared in acceptable form and style.
- 4. The body of experimental work to be incorporated into the thesis is subject to the approval of the student advisory committee members. The advisory committee should, therefore, be formally consulted as the research project nears completion to ensure that there is agreement with respect to the material deemed necessary and sufficient for incorporation into the thesis. Such consultation will normally occur in the form of a meeting of the advisory committee with the student. The faculty adviser has a responsibility to advise the student when the meeting of the advisory committee for this purpose should take place.
- 5. The thesis is prepared in an acceptable form and style with the counsel of the faculty adviser. The faculty adviser determines when the thesis document can serve as the basis for the final oral examination (or thesis defense). With the approval of the faculty adviser, the final oral examination by the advisory committee is scheduled and the thesis document is distributed to the advisory committee. Distribution of the thesis document to the advisory committee should take place at least ten working days in advance of the final oral examination. The Office of Graduate Education is to be informed of the scheduling of the final oral examination ten working days in advance of the scheduled date. The Office of Graduate Education then identifies a representative of the MCV Campus Graduate Committee to chair the examination, and provides an announcement of the final oral examination, which includes the name and department of the candidate together with the title of the thesis and the day, place and time of the final oral examination.
- 6. The final oral examination is conducted by the student advisory committee at the designated time and place and is open to the faculty. A representative of the MCV Campus Graduate Committee serves as the chair of the examination committee and is a voting member of the examination committee. The subject matter of the examination includes the subject matter of course work as well as the content of the thesis. A favorable vote of the advisory committee with no more than one negative vote is required to indicate that

- the candidate has passed the final oral examination. All members of the examination committee must vote. The outcome of the final oral examination is reported to the Office of Graduate Education. If the outcome is negative, the final oral examination may be retaken with the approval of the MCV Campus Graduate Committee. Advance approval is requested in writing by the department on behalf of the candidate.
- 7. The student advisory committee approves the thesis document as acceptable after the final oral examination has been successfully completed. Approval of the thesis as acceptable is indicated by the signature of all members of the advisory committee on the signature page of the thesis. Approval of the thesis by the advisory committee must be unanimous. A thesis is not required for completion of the Master of Genetic Counseling Program. In lieu of the thesis, students in this tract are required to successfully pass comprehensive oral and written examinations.

Master of Public Health

The M.P.H. degree is offered in three tracks (epidemiology, generalist and social and behavioral science). A minimum of four semesters of full-time study (45 credit hours) is necessary to complete the degree requirements. All M.P.H. students are required to conduct a scientific investigation on a topic relevant to human and public health. The research project is conducted under the guidance of a faculty adviser and a preceptor with expertise in the topic area. The student must prepare a report of the research and give an oral presentation to the department.

Termination of enrollment

The university reserves the right to terminate the enrollment of any student for unlawful, disorderly or immoral conduct or for persistent failure to fulfill the purposes for which he or she was matriculated.

A student enrolled in a graduate program under the supervision of the MCV Campus Graduate Committee may be dismissed from the school in which he is enrolled for failure to meet academic requirements prescribed by his school or failure to exhibit the attitudes and skills deemed necessary to function within his chosen scientific discipline.

Any action by a graduate student in a program under the supervision of the MCV Campus Graduate Committee considered to be unprofessional conduct shall constitute cause for disciplinary action.

Unprofessional conduct includes, but is not limited to:

- Fraud or deceit in gaining admission to the university, i.e., false or obviously misleading representations on the admission application
- An act that violates the established legal standards regarding conduct of one person toward society (i.e., stealing, lying, cheating and slander)
- 3. Conviction of a felony involving moral turpitude
- 4. Plagiarism or other scientific misconduct

MCV Campus Graduate Committee

The assembled directors of graduate programs and the associate dean for graduate education form the MCV Campus Graduate Committee, with the associate dean serving as chair of the committee. This committee holds the responsibility for ensuring appropriate administration of graduate programs, reviewing modifications of didactic courses, new course offerings and new programs, reviewing proposed modifications of program curricula to ensure maintenance of standards of quality, avoid duplication and comply with the missions of the school, and for recommending action to the dean. The committee members provide the pool of candidates from which the school representatives to the University Graduate Council are chosen.

The School of Medicine follows the policies of the Graduate School with regard to the modification of existing courses, curricula and programs as well as the introduction of new offerings. Proposals will normally come from the faculty acting through departmental bodies charged with the responsibility of monitoring academic training. In the case of offerings in interdisciplinary areas, these will normally require the input and approval of departments whose faculty and students are participants. The associate dean for graduate education in the School of Medicine may assist in the coordination of the proposal process. Proposed changes and additions are, under University guidelines, subject to review by the Curriculum Committee of the school. The MCV Campus Graduate Committee serves as the Curriculum Committee for the School of Medicine. On approval by the MCV Campus Graduate Committee, the approval of the dean of the School of

Medicine is required prior to submission to University Graduate Council for review

For comprehensive information on the School of Medicine departments, programs and faculty, please go to the school Web site at http://www.medschool.vcu.edu.

Professional programs

The School of Medicine offers the Undergraduate Medical Education, leading to the first-professional Doctor of Medicine degree; as well as Graduate Medical Education and Continuing Medical Education. Refer to each program's description for admission and program requirements.

Undergraduate Medical Education (M.D.)

The School of Medicine offers the first-professional Doctor of Medicine (M.D.) that develops students' clinical skills, professionalism and critical thinking. For more information about admission standards, curriculum requirements and other policies for the M.D. program, refer to the Medicine, Doctor of (M.D.) section of this bulletin.

Graduate Medical Education

Graduate Medical Education at Virginia Commonwealth University Health System provides diverse opportunities with very high academic and clinical standards for medical and dental graduates to pursue specialty training. Currently we offer over 70 medical and dental programs. The programs are accredited by either the Accreditation Council for Graduate Medical Education (ACGME) or the American Dental Association (ADA). Most of the programs use the ERAS application and the NRMP Matching program. We have over 700 residents training with the Health System and bring in approximately 200 new residents per year.

We encourage all qualified applicants to apply to our programs. For a detailed description of the qualifications and requirements please go to our Web page at www.medschool.vcu.edu/gme/residency.html.

Continuing Medical Education

The primary goal of the VCU Office of Medical Education is to provide continuing educational experiences specifically designed to enhance the delivery of high quality patient care by physicians and other health care professionals in Virginia and other states. The philosophy of continuing medical education is based on the belief that learning must be viewed as a lifelong process. In past generations, the graduating physician was able to look upon an acquired knowledge base as a reasonably stable resource for practicing medicine. However, today's rapidly expanding load of scientific information forces a continuing learning effort upon the physician. Undergraduate and graduate medical education alone can no longer offer reasonable assurance that practitioners are armed with the knowledge, attitudes and skills that will enable them to render optimal, achievable patient care throughout their careers. Continuing education is now linked with undergraduate and graduate education to complete the continuum of medical education.

The goal and philosophy stated herein undergird and lend direction to the effort of the Office of Medical Education as it engages in a diversity of educational and education-related activities. Specifically, the Office of Medical Education works in concert with the faculty of the School of Medicine, as well as other individuals and organizations as appropriate, to:

- coordinate a statewide continuing medical education program for several networks of affiliate hospitals,
- organize the Virginia Hospital Television Network and provide continuing education programs for physicians and other health professionals directly into hospitals statewide, using satellite and audio-conferencing,
- develop and deliver a series of short courses, clinical workshops, seminars, international medical study tours and conferences for physicians and other health professionals,
- provide clinical refresher courses and make readily available self-learning materials and methods, conduct research to improve the process of continuing medical education, and
- improve the education of the general public in the proper use of health care resources.

Fostering an appreciation for the concept of lifelong learning in undergraduate and graduate medical school programs is a challenge that is now being confronted by medical schools throughout the nation. During these critical years, the attitudes of medical students toward continuing pursuits of learning are molded and developed. In order to encourage undergraduate and graduate students at VCU to embrace the concept of lifelong learning, the Office of Medical Education actively seeks their involvement in its various programs and activities. Brochures, posters and a yearly catalog are utilized to announce pending events.

Further information may be obtained by writing the Assistant Dean for Continuing Education, School of Medicine, Virginia Commonwealth University, P.O. Box 980048, Richmond, VA 23298-0048.

Combined degree programs

The School of Medicine offers several combined degree programs:

- M.D./Ph.D. Program
- M.D./M.H.A.
- M.D./M.P.H. Program
- Combined M.S./Ph.D. and D.D.S. degree programs

All programs require review and acceptance by the professional degree program (M.D.) as a condition of entry into the combined degree program. Training for the graduate degree takes place following an initial phase of training in the professional program. Following completion of graduate degree requirements, the final phase of training in the professional degree program is concluded. Consult the appropriate listing for details of the admissions and program requirements.

Medicine, Doctor of (M.D.)

The program for the M.D. degree is divided into four phases. The Scientific Foundations of Medicine covers the first semester and emphasizes the basic science concepts within a clinical context that every student must master to progress with a medical education. The Applied Medical Sciences integrate basic science principles with pathophysiology and treatment using an organ-system approach. This course runs two semesters. The last two years cover the Clinical Concentrations and Advanced Clinical Concentrations. Students are expected to successfully complete clerkships in seven core areas in addition to advanced training that assesses their competency to practice with supervision. There are also opportunities for students to take electives throughout the clinical concentrations to enrich their medical experience and to assist them in planning a career within a specific field of medicine.

School of Medicine students begin their clinical exposure in the first week of medical school in the Practice of Clinical Medicine course. The first week is a "boot camp" in learning the history and physical examination culminating in performing an H and P on a standardized patient that Friday. This longitudinal experience runs throughout the four years and consists of sessions in a physician's office, small-group sessions, workshops and interacting with standardized patients and simulators, and, finally, care of patients in advanced clinical settings. This course gives students the opportunity to learn the clinical relevance of basic science material and to work with a primary care role model.

Admissions

Whitehurst-Cook, Dr. Michelle

Associate Dean of Admissions

The School of Medicine participates in the American Medical College Application Service. The AMCAS application forms can be obtained from AMCAS, 2450 N. St., N.W., Washington, D.C. 20037-1126. The electronic application is available at www.aamc.org/students/amcas. Updated information is available at the School of Medicine Web site: www.medschool.vcu.edu. Application for the School of Medicine should be made during the first week of June of the year preceding intended matriculation. Letters of recommendation can now be submitted with the AMCAS application.

The closing date for filing applications for this institution is Oct. 15 of the year preceding the enrollment date. Priority for admissions is given to Virginia residents; however 45 percent of each class is from out of state. Members from disadvantaged populations are encouraged to apply to the School of Medicine. Students previously dismissed from a medical school will not be considered. All applicants must be U.S. citizens, permanent residents of the U.S. or Canadian

citizens at the time of application. Permanent residents must submit their cards prior to file review.

A nonrefundable \$80 application fee and supplemental information, including letters of recommendation, are required with all applications accepted for further consideration. The final date for returning supplemental information is Jan. 31 of the year of possible enrollment in the School of Medicine. Students are given individual deadlines which are 60 days from the date the Supplemental Application is granted.

The School of Medicine will not matriculate students from other health sciences schools at VCU or any other school until such students have completed the degree program for which they are enrolled.

The School of Medicine participates in the Early Decision Plan. This program permits an applicant to file a single application through AMCAS by Aug. 1. All applicants filing under the Early Decision Plan will receive consideration for admission and a response on or before Oct. 1. All applications for the Early Decision Plan must be supported by the results of the new MCAT test at the time the application is made.

The early notification date of this plan ensures that those who are unsuccessful have ample time to request further distribution of their applications to other medical schools. Further information on the Early Decision Plan is available with the AMCAS application.

Requirements for entrance

The MCAT is required as part of the application. It is necessary that the test be taken no later than September of the year of application. This test is produced by the American College Testing Program, P.O. Box 414, Iowa City, IA 52240, and is administered in colleges and universities throughout the country. Information about the MCAT is available through premedical advisers or directly from the American College Testing Program.

Applicants may be admitted on the basis of 90 semester hours of outstanding achievement. The majority of successful candidates have a college degree at the baccalaureate level or higher. The college major for premedical students should be selected in accordance with the individual student's aptitude and interest. The prerequisites for the School of Medicine have been reduced to a minimum in order to permit the widest possible latitude in preparation for medical education.

Prerequisites for admission include a minimum of 90 semester hours (or the equivalent) in a U.S. or Canadian college or university accredited by the regional accrediting agency. This program of study must include a minimum of:

- 1. English two semesters (one semester to include grammar and composition);
- 2. College mathematics two semesters;
- Biological science eight semester hours, including laboratory experience.
 This requirement may be satisfied by general biology, general zoology or botany. No more than half may be botany;
- General or introductory chemistry eight semester hours, including laboratory. An appropriate portion of this requirement may be met by courses in analytical chemistry or physical chemistry;
- Organic chemistry eight semester hours, including laboratory. This course should be equivalent to and acceptable for continued studies in a chemistry major;
- General or introductory physics eight semester hours, including laboratory experience.

Students are encouraged to pursue their own intellectual interests in college in order to obtain a broad education consistent with their major program. Courses in medically related science areas will not relieve the student of his/her responsibility for these subjects in the medical curriculum.

Selection factors

Demonstrated academic ability, as well as attributes of character and personality, are of significance to the admissions committee in the selection process. A review of academic achievement as represented by the standard academic record and summaries, MCAT scores, evaluations and interviews are all sources of information on which the comparative evaluation process is based. A review of the completed application file and interviews with members of the admissions committee are an integral part of the admissions process.

Noncognitive variables also are sought in all candidates. These qualities include, but are not limited to, health care experience, community service and social

concern, communication skills both written and oral, leadership, ethical and moral behavior, creativity, compassion and empathy, altruism, personal maturity, selfconfidence without arrogance, appropriate motivation, the ability to realistically self-appraise, and a demonstrated ability to work as a team member. These qualities and characteristics are judged by references within the letters of recommendation and from a careful review of the student's essays and extracurricular activities, as well as the interviewers' assessment during the interview. The School of Medicine hopes to create a learning environment where students will meet colleagues whose life experiences and views differ significantly from their own. A physician must be at home and at ease in a wide variety of environments and with a wide variety of people. Students frequently comment that the aspect of the school they appreciate most is the diversity of their class. The admissions process seeks to foster that diversity of perspective and background by admitting students from a wide range of backgrounds — socioeconomic, cultural, geographic and educational. Health care experience is also examined as a true evaluation of the motivation of the candidate for a career in medicine.

The interview is an opportunity for the applicant to become acquainted with the institution and it offers additional information for the selection process. Only oncampus interviews in Richmond are available. Each year more applicants are interviewed than can be accepted in the class. Therefore, an interview is not an indication of acceptance to the School of Medicine.

Offers for admission are made in the Early Decision Plan on Oct. 1 and on the uniform acceptance date after Oct. 15, with admissions occurring at several points thereafter until the class selections have been completed. The approximate dates for acceptance decisions are Oct. 16, Dec. 15, Feb. 1 and March 15. At the time the class is filled, an alternate list of applicants is compiled from which replacements are drawn for any vacancies that may occur in the selected class between notification and the third week of class attendance.

Since selections are made in advance of actual attendance, all acceptances are made on condition of satisfactory completion of courses planned or in progress. It is expected that candidates will maintain acceptable standards of deportment. Students offered acceptance into a class are expected to respond within two weeks of the offer. If such a response presents a problem, extension of the time for the response should be requested. After March 31, students are selected from a wait list of very good candidates until the first day of orientation in August.

The enrollment of accepted candidates is considered complete only after payment of the \$100 deposit toward the first tuition payment. This deposit will be returned to the candidate should withdrawal occur prior to May 15 of the year of attendance. By the act of matriculation into the School of Medicine, the student accepts the responsibilities related to this opportunity and agrees that during the time that he/she is a registered student he/she will follow the rules and regulations established by the governing bodies of the School of Medicine and the university.

Transfer in advanced standing

Background

It is incumbent upon the School of Medicine to delineate the circumstances under which a student may transfer in advanced standing from another medical school; the number of transfers that will be allowed so as not to encumber educational resources for currently enrolled students; and to assess the qualification of transfer students to assure that they have had a comparable educational experience at the time of matriculation.

Policy

- Medical students may only transfer into the VCU School of Medicine under rare and extraordinary circumstances (e.g., natural disaster that prevents continued education at the student's home institution, loss of accreditation by the home institution).
- Only students from schools that are currently accredited by the LCME or that have recently lost accreditation will be considered for transfer. Osteopathic and international students and those from off-shore medical schools may not transfer.
- Only U.S. and Canadian citizens and permanent residents may apply to transfer
- Students may only transfer into the clinical concentrations component of the curriculum and must complete all of their required clerkships and advanced clinical experiences at the VCU School of Medicine.

- The senior associate dean for medical education will determine by January of each academic year if there are positions for transfer that would not impede on current resources.
- 6. Students seeking transfer must submit the following information by Nov. 1 of the year prior to transfer:
 - a. A letter of interest delineating the specific circumstances for transferring
 - b. A copy of the original AMCAS application
 - c. An official transcript from their current school of medicine
 - d. A letter of support from their school's dean of medical education or student affairs
 - A copy of the USMLE Step 1 verifying that that student has passed the examination
 - f. A non-refundable processing fee of \$100
- Information for transfer should be mailed to:
 Senior Associate Dean for Medical Education and Student Affairs
 Virginia Commonwealth University School of Medicine
 McGlothlin Medical Education Building
 1201 East Marshall Street, 4th Floor
 P.O. Box 980565
 Richmond, VA 23298-0565
- 8. The senior associate dean for medical education and student affairs or his/her designee shall review the transcript and possibly contact the applicant's home school to determine that the educational experience is comparable to that of one of our students entering the clinical concentrations. In addition, criteria for comparability shall include, but not be limited to, GPA, USMLE scores and MCAT scores.

Applicants that have met the above requirements and who are deemed to add value to the current group of student will be offered interviews by the administrative staff of the School of Medicine. Holistic interviews will be completed similar to those seeking initial admission to the medical school.

Applicants will be notified of a final decision no later than Jan. 31 of the year of transfer.

Disability Support Services

Virginia Commonwealth University in agreement with Section 504 of the Rehabilitation Act of 1973 and The Americans with Disabilities Act of 1990 provides reasonable accommodation to any individual who advises us of a disability. We wish to provide new and current students who have a disability the opportunity to voluntarily identify themselves.

Early identification permits the Coordinator of Services for Students with Disabilities the opportunity to acquire verification of the disability, if required, and the opportunity to get appropriate accommodations in place as soon as possible. All accommodations request are handled on an individual basis. Examples of some accommodations are; extended test taking time, alternative testing format, note takers, readers, scribes, quiet testing area, sign language interpreters, assistive technology and computer software programs which are located in the library for student use.

If you are an individual with a disability and wish to identify yourself as such, please contact the Office of Disability Support Services. It is important to note that all disclosures are confidential and are released only with your permission. A comprehensive VCU Handbook for Students with Disabilities is available upon request. Be sure to include your name, address and phone number if you write. We also are available to answer questions about accommodations and services.

Director, VCU Office of Disability Support Services P.O. Box 980124 Richmond, VA 23298-0124 (804) 828-9782 VTDD (804) 828-4608 FAX (804) 828-4609 www.vcuhealth.org/vp/sassdss

Curriculum for students matriculating in 2012 or earlier

Wood, Dr. Isaac K.

Senior Associate Dean for Medical Education and Student Affairs www.iwood@vcu.edu (804) 828-9791

The program for the M.D. degree is divided into four phases, each of one year's duration. Medicine I, occupying the first year (mid-August to early June), emphasizes normal human structure, function, growth and development. Medicine II, occupying the second year (August to May), stresses pathological conditions. Medicine III occupies the third year (July to July) and consists of clinical education and training. Medicine IV, lasting from August to mid-May, consists of approximately one-fourth required clinical education and training with the remainder open for electives at the Virginia Commonwealth University Medical Center and at approved medical schools elsewhere in the U.S. and abroad. Elective opportunities also are offered in M-I and M-II.

Registration in courses offered by the School of Medicine is restricted to students enrolled in the School of Medicine at Virginia Commonwealth University.

Medicine I and II

The curriculum is viewed as a dynamic and evolving entity and course titles, content or duration of emphasis may be subject to modification for the sake of improving the learning experience.

Each course in M-I and M-II is designed and implemented by a faculty committee and each phase of the curriculum is supervised by a faculty coordinator.

M-I Curriculum

The first year of medical school, from mid-August to early June, focuses on the normal human structure, function, growth and development.

- Foundations of Clinical Medicine www.medschool.vcu.edu/admissions/ fcm.html
- · Medical Bioethics
- Population Medicine
- · Medical Biochemistry
- · Human Genetics
- · Gross and Developmental Anatomy
- Physiology
- Histology
- Behavioral Sciences
- · Immunology
- Neurosciences

Total courses: 11

M-II Curriculum

The second year, from early August to late May, emphasizes the pathologic manifestations in the treatment of diseases. All students participate in the following courses:

- · Foundations of Clinical Medicine
- · Medical Bioethics
- Pharmacology
- Pathogenesis
- Microbiology
- · Hematology-Oncology
- Endocrine
- Renal
- Respiratory
- Cardiovascular
- · Behavioral Sciences II
- Central Nervous System
- · Women's Health
- · Gastrointestinal
- Musculoskeletal

Total courses: 15

Medicine III

M-3 Clerkships

During the third year, students receive clinical training by rotating through the various hospitals and ambulatory services. This rich clinical experience is supplemented by didactic presentations on practice-related topics. All students participate in the following clerkships:

- Internal Medicine (12 weeks)
- Surgery (8 weeks)
- · Pediatrics (8 weeks)
- Obstetrics/Gynecology (6 weeks)
- · Psychiatry (6 weeks)
- Neurology (4 weeks)
- Family Practice (4 weeks)
- M-III Workshop (1 week)

Total required rotations: 8

Medicine IV

M-IV Curriculum

M-IV is an elective year, with more than 200 electives offered. Each elective is four weeks long.

The School of Medicine, in an effort to best serve the needs and goals of the individual student, offers M-IV students the option of choosing electives during the majority of their senior year. The elective curriculum has been arranged primarily to allow those students who have definite goals to pursue them logically without adherence to a required curriculum. At the same time, it allows those who have not yet defined their goals an adequate assortment of electives with which to explore career options. Where standard elective choices seem too limiting, students are encouraged to approach individual faculty members relative to the development of unique courses that more closely approach individual needs. A member of the M-IV Advisory Committee is available to advise each student and to approve each students program.

The year is divided into nine four-week periods. The required rotations, which must be served at the MCV Campus or an affiliated institution such as Inova-Fairfax Hospital or the McGuire VA Medical Center, are an acting internship and an emergent care selective in anesthesia, emergency medicine or one of the intensive care units. All students are required to take the year-end Update of Basic Sciences and Clinical Medicine course.

A description of the creation of the M-IV schedule, including Electives Guidelines and the policy for Visiting Students is presented in the Senior Electives Catalog section of the School of Medicine website.

U.S. Medical Licensing Examination

All students are required to take the U.S. Medical Licensing Examination Step 1 prior to the start of the M-III year. Students are required to pass Step 1 for promotion to the M-IV year. If a student fails Step 1, he or she will be allowed to complete the current M-III clerkship and be required to take time off during the M-III year in an elective status to study for and retake the exam. The time off will be individualized for each student after discussion with the curriculum office and approval by the Promotions Committee. Failing to pass the exam after three attempts will result in dismissal.

All students are required to take U.S. Medical Licensing Examination Step 2 CK and CS for the first time after completion of their M-III year or by Dec. 1. Students are required to pass USMLE Step 2 CK and CS for graduation. Failure to pass either examination after three attempts will result in dismissal.

Grading and promotions

Each student's progress toward his/her objectives is evaluated by examination in each area of subject matter and by national board examinations at appropriate times. Grades are assigned as honors, high-pass, pass, marginal or fail. Students receiving marginal or fail grades are counseled. All students are assigned a faculty adviser, available to the student throughout the four years of study.

Students who have attained satisfactory grades in M-I and M-II, but who do not pass U.S. Medical Licensing Examination Step 1, must take time off to study the basic medical sciences during the third school year, prior to their repeating the Step 1 examination. These students will use part of their fourth year to complete the segments omitted during the study time. Students must pass USMLE Step 1 to be promoted to the M-IV year.

At the close of each academic year, the Promotions Committee, composed of department chairs, recommends to the dean which students have achieved the objectives of the year and which students are qualified for either promotion or graduation. The Promotions Committee is charged to give careful individual attention to all aspects of student achievement, effectiveness, behavior and attitude. The Promotions Committee shall not recommend for promotion any student who has failed to meet the requirements of the preceding year or who appears unfit for the practice of medicine. In consideration of ones fitness for the practice of medicine and in recognition of the critical role of professionalism in being an effective physician, the Promotions Committee shall not recommend for promotion any student who has demonstrated a significant lack of either integrity or professionalism as those concepts are outlined in the School of Medicine Standards of Professional Behavior. When the committee determines by majority vote that a student will not be promoted, it then recommends to the dean remedial activities or dismissal in instances where no remedy is perceived. The dean reviews the recommendations and promptly notifies students that they have been promoted, have to repeat a year, require specific remediation or have been dismissed. A student repeating the year is expected to show significant improvement. The Promotions Committee also will meet each January to review the status of all senior students, all third-year students and M.D./Ph.D. candidates. At this meeting, the committee also will review any other students in serious academic difficulty and may choose to take final action, including dismissal, on such students.

An Appeals Committee of three senior faculty members will hear appeals of dismissals when such are filed in writing within 14 days of the student's notice of dismissal. A student also may appeal a decision to repeat a year, but such appeals will be reviewed by the Appeals Committee only when it is found that the student will present information not previously available to the Promotions Committee. A student appealing has the right to appear before the Appeals Committee and to have an adviser participate. The dean of the School of Medicine will act upon the recommendation of the Appeals Committee within 14 days of receipt of the committee's recommendation.

For classes matriculating in 2012 or earlier, the following guidelines will apply. It should be noted that these only serve as guidelines for the Promotions Committee which may recommend other remediation or dismissal:

M1/M2: If a student does not achieve competency in one course, he/she will be required to take a repeat examination. If the student does not achieve competency on the repeat examination, he/she will be required to repeat the year and pass all courses previously taken. If the student passes the examination, he/she will be promoted to the next year.

If a student does not achieve competencies in two courses, he/she will be required to take a repeat examination in each course. If the student does not pass both examinations, he/she will be required to repeat the year and pass all courses previously taken. If the student passes both examinations, he/she will be promoted to the next year.

If a student does not achieve competencies in three courses, he/she will be required to repeat the year and pass all courses previously taken. If a student does not achieve competency in four courses, he/she will be dismissed.

M3: If a student earns a less than passing grade in a core clinical clerkship, his or her file will be reviewed in the Promotions Committee process. If a student has a fail in a clerkship, the student is required to repeat the entire clerkship in his/her fourth year. If the student has three less-than-passing grades on the first attempt in core clinical clerkships, the student is required to repeat the third year. A student repeating the entire year is expected to pass all clerkships taken previously or be immediately dismissed. A marginal grade is not a passing grade. If a student has four less-than-passing grades in core clinical clerkships, he or she may be dismissed. Students are required to pass USMLE Step 1 for promotion to the advanced clinical phase.

M4: A student with one grade of Marginal in a non-required M4 elective may be allowed to graduate without remediation. A grade of Fail in any elective or a grade of Marginal in a required experience (e.g., an acting internship or urgent care elective) must be remediated. Appropriate remediation is determined by the

elective director in consultation with the Senior Associate Dean for Medical Education and Student Affairs.

The appeal process

Students may appeal decisions of dismissal, except for dismissals by the Honor Council (which should be appealed through the appropriate Judicial Affairs procedures). Students also may appeal decisions to repeat a year/semester or to not be graduated. Such appeals will be heard by the Appeals Committee. The Appeals Committee shall consist of three faculty members, elected by the faculty with staggered terms. One of those members shall be designated by the dean as the chair. A student will be granted an appeal hearing only if two senior faculty members selected by the dean agree that any of these situations occurred:

- The Promotions Committee process was conducted unfairly or without regard to prescribed procedure or protocol.
- There is new evidence or relevant information not available at the time of the Promotions Committee meeting that if consequential, would have altered the decision of the Promotions Committee.
- · The original decision was not supported by substantial evidence.
- The sanction imposed was disproportionate to the gravity of the situation.

Procedure

- A student must file an appeal in writing to the dean's office within 14
 calendar days of the date of the mailing of the student's notice of action of the
 Promotions Committee. The student will be notified via email and through
 the postal service. The date of the email marks the official start of the appeal
 process.
- The student's appeal will be reviewed by two senior faculty members who
 will decide if there are sufficient grounds to conduct an appeal hearing. This
 decision will be made within 14 calendar days of receiving the student's
 written appeal.
- If a hearing is warranted, the Appeals Committee will meet within 21 calendar days of the review by the senior faculty members.
- The appealing student has the right to appear before the Appeals Committee, but the time available to him/her may be limited by the Appeals Committee chairperson. The time limitation will not be less than one-half hour.
- The student may have anyone who would serve him/her as an adviser present during his/her presentation to the Appeals Committee. The adviser may participate in the student's presentation (within the time limits set forth above) and may address questions to the representative of the Promotions Committee.
- The student may have an attorney present, but the attorney may not
 participate in this academic hearing nor serve as an adviser to the student.
- The appealing student has the burden of proof. The senior associate dean for medical education and student affairs will present the findings of the Promotions Committee and describe their discussion to the Appeals Committee.
- The student, his/her representative, the senior associate dean for medical education and student affairs, and the dean's representative are not present during the deliberations or voting of the Appeals Committee.
- All components of the appeal process are recorded except the deliberations.
 The recording represents the sole, official, verbatim record of the hearing and is the property of Virginia Commonwealth University School of Medicine.

The Appeals Committee will send its findings and recommendation and the recorded vote to the dean of the School of Medicine who must act upon the recommendation within 14 calendar days. The dean's decision is final and may not be appealed. Students who have been dismissed may reapply to medical school as a matriculating student.

Withdrawal

Students may withdraw after meeting with the senior associate dean for medical education and submitting a letter requesting withdrawal.

Requirements for graduation

The degree of Doctor of Medicine will be conferred by VCU upon candidates who, in the opinion of the medical faculty, have:

- Attained the schools educational objectives as evidenced by satisfactory completion of prescribed courses and examinations, by proven clinical skills and responsibilities, and by ethical standards.
- Passed Step 1, Step 2CK and Step 2CS of the U.S. Medical Licensing Examination before graduation (April of the M-IV year).
- Attended the School of Medicine for a minimum of two years, one of which must be an academic year of clinical rotations.
- Discharged all financial obligations to the university.

It is the policy of the School of Medicine that candidates must be present at commencement exercises unless excused by the dean.

School of Medicine core competencies and objectives

Professionalism: The ability to understand and demonstrate the nature of professional and ethical behavior in the act of medical care. This includes respect, responsibility, accountability, excellence, honor, integrity, altruism, leadership, cultural competency, compassion, maintenance of professional boundaries and confidentiality.

Students who are graduated from Virginia Commonwealth University School of Medicine will:

- Provide compassionate care to patients with respect for their privacy and dignity
- Display honesty, integrity and responsibility in all educational settings and in interactions with patients, their families and colleagues
- · Consistently advocate for the patient's best interest
- · Practice ethical decision-making
- Be accountable to the patient, society and the profession through a commitment to excellence and ongoing professional development
- Respond appropriately to the conflicts of interest inherent in the various financial and organizational arrangements within the practice of medicine
- Participate as an active member of the learning community and facilitate the learning of peers and other health care professionals
- Describe the psychological and physical risks and stressors of the practice of medicine
- Identify possible impairments in function and practice techniques for harm reduction

Patient engagement and communication (interpersonal and communication skills): The ability to engage and communicate with patients, their families and professional associates, using interpersonal skills to build relationships for information gathering, guidance, education, support and collaboration.

Students who are graduated from Virginia Commonwealth University School of Medicine will:

- Create and sustain therapeutic and ethically sound relationships with patients and their families
- Employ effective oral and written communication skills to elicit and convey information while building rapport with patients, their families and professional associates
- Build collaborative relationships across both educational and clinical environments with patients, their families and professional associates
- Engage in shared decision-making with patients and their families or individuals designated to fulfill this responsibility for the patient
- Educate and counsel patients regarding basic lifestyle changes and disease prevention
- Conduct patient handover communications to other providers which are effective, efficient and maximize patient safety

Application of scientific knowledge and method (medical knowledge): The ability to discuss the biomedical, epidemiological and social-behavioral aspects of clinical science and apply this knowledge to patient care.

Students who are graduated from Virginia Commonwealth University School of Medicine will:

Use the scientific method to analyze basic, translational and clinical research

- Describe the molecular basis for the functions of organs and systems in health and disease
- Describe, apply and integrate the normal and pathologic structure and function of each organ system of the body
- Describe, apply and integrate the ways in which organ systems are affected by the various causative mechanisms of disease
- Recognize the clinical, laboratory, radiographic and pathologic manifestations of disease
- Describe, apply and integrate the scientific basis of disease prevention and treatment, including intended and unintended effects
- Apply evidence-based practice in defining and treating disease and when evaluating the efficacy of traditional and nontraditional therapies
- Appraise the impact of social-behavioral factors on health maintenance, causation of disease and therapeutic outcomes

Patient care: The ability to provide patient care that is appropriate and effective for the treatment of health problems and the promotion of health.

Students who are graduated from Virginia Commonwealth University School of Medicine will:

- Obtain a complete history and perform a comprehensive physical/mental status examination in an organized fashion without supervision
- Utilize a focused history and physical and mental status examination to obtain relevant clinical information in a prioritized, organized and efficient manner
- Utilize alternative sources (i.e. family members, other health care providers, etc.) to obtain a medical history when necessary
- Recognize patients with immediate life-threatening or serious conditions that require critical care and outline an initial course of management
- Discuss with and provide to patients and their families information and counseling aimed at disease management, prevention and wellness
- Identify the epidemiology of common conditions within a defined population and apply systematic approaches to help reduce the incidence and prevalence of these conditions
- Describe the indications, risks, limitations, complications and interpretation of commonly used diagnostic tests
- Perform routine procedures competently and identify the indications, risks, limitations, justifications, complications and interpretations of these procedures
- Construct appropriate assessments, differential diagnoses and treatment plans for patients across the spectrum of medical presentations
- Gather, interpret and apply ongoing relevant clinical information in the care of patients
- Select appropriate tests for detecting patients at risk for specific diseases and determine strategies for responding appropriately
- Utilize information technology to gather patient data, support patient care decisions and educate patients and their families
- Enter and discuss safe and appropriate orders for patients using written form as well as the electronic medical record
- Compose prescriptions in verbal, written and electronic formats using accepted standards
- Obtain informed consent for interventions, tests and/or procedures which they order and/or perform

Putting care in practical context (systems-based practice): The ability to provide clinical care within the practical context of a patient's age, gender, personal values, family, health literacy, culture, religion and social and economic circumstances. This goal includes consideration of relevant ethical, moral and legal perspectives, patient advocacy, public health concerns, and resources and limitations of the health care system.

Students who are graduated from Virginia Commonwealth University School of Medicine will:

 Obtain patient histories including information about patients' culture and other factors that may influence the appropriate course of care

- · Perform culturally sensitive physical exams
- Identify cultural barriers that are perceived by patients as impacting health and health care
- Develop plans of care that take into account pertinent cultural attributes of patients and address barriers perceived by patients
- Compare and contrast various approaches to the organization, financing and delivery of health care
- Demonstrate understanding of the legal framework within which physicians function
- Describe the various roles and responsibilities of members of the health care team
- Interact effectively with all members of the health care team to provide the best possible care for patients
- Relate the effect of public policy actions to individual health and health care systems as a whole
- Define the methods used by individuals and systems to improve quality of care
- Practice a commitment to provide care to patients who are unable to pay and to advocate for access to health care for members of underserved populations
- Recognize and appropriately address gender and cultural biases in themselves and others and in the process of health care delivery

Self-directed learning and self-assessment (practice-based learning and improvement): The ability to assess and understand one's learning style, to self-identify areas of strength and weakness, to independently identify and evaluate resources to engage in lifelong learning, and to critically appraise the evolving body of medical knowledge.

Students who are graduated from Virginia Commonwealth University School of Medicine will:

- Appreciate the limitations of one's own knowledge and skills and seek to
 engage in lifelong learning and the advice and teaching of more experienced
 medical practitioners to address those limitations
- Appreciate the limitations of the role of a physician
- · Appreciate the limitations of the evolving body of medical knowledge
- Retrieve, critically review and utilize biomedical and biopsychosocial information
- Identify means to maintain a healthy balance between professional and personal responsibilities to optimize mental, physical and emotional wellbeing

School of Medicine Registrar

The School of Medicine houses a Registrar's Office to meet the needs of physician trainees and alumni. Visit the School of Medicine Web site for more information at www.medschool.vcu.edu/registrar.

Criminal background checks

All applicants to the VCU School of Medicine who receive an acceptance will have a criminal background check performed by Certiphi Screening Inc. If there is a positive finding you will be notified by Certiphi first; this will allow you to make corrections to the report and verify the information. If there is no change in your status Certiphi will then notify VCU of their positive findings. VCU's Criminal Background Committee will meet to discuss your Certiphi report to determine if acceptance is to be withdrawn. We encourage full disclosure at all times on the AMCAS and supplemental applications, as dishonesty will impact the committee's decision. If you have a legal finding or institutional action against you after the supplemental is submitted please notify our admissions office immediately. Once an applicant is matriculated, full disclosure is also required throughout your time in medical school. Criminal background checks are repeated for all students at the end of the second year and for specific program participations throughout medical school.

Health policies

Virginia Commonwealth University School of Medicine requires that all medical students carry active health insurance. Health insurance benefits must be equal to

or greater than those provided by the university health carrier. In addition, it is required that all students complete required immunizations within six months of matriculation and have repeat tuberculosis screening performed annually. For details related to these policies, please visit www.medschool.vcu.edu/studentactivities.

The School of Medicine requires that all students enrolled in the graduate academic programs administered by the school hold active health insurance coverage. This requirement applies to students at all degree categories: doctoral, master's and certificate. Compliance is monitored by administrative offices of the school and departments. Failure to comply with this requirement is grounds for dismissal.

Student organizations

The School of Medicine, through the Office of Student Affairs, provides oversight to all of the organizations available to medical students. All student organization are required to register with the Office of Student Affairs following established policy and the approved registration format.

For more information, visit the School of Medicine student organizations Web page at www.medschool.vcu.edu/studentactivities/studentorganizations.htm.

Medicine, Doctor of (M.D.)/Biomedical Engineering, Doctor of Philosophy (Ph.D.) [combined]

Graduate program director

Jennifer S. Wayne, Ph.D.

Professor and associate chair, Department of Biomedical Engineering jwayne@vcu.edu

(804) 828-2595

Additional contact

Gerald E. Miller, Ph.D.

Professor and chair, Department of Biomedical Engineering gemiller@vcu.edu

(804) 828-7263

Program website: biomedical.egr.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Biomedical Engineering, Doctor of Philosophy (Ph.D.) Biomedical Engineering, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

The M.D./Ph.D. program seeks to train physician-scientists for careers that bridge basic and clinical science. Physician-scientists will translate laboratory discoveries into better patient outcomes. The program begins two months prior to the first year of medical school. These students arrive on campus for orientation and complete two laboratory rotations before the start of medical school classes. They complete the first two years of medical school and, after taking the first part of the U.S. National Medical Licensing Examination, enter a Ph.D.-granting department or program as a graduate student. Graduate-level course work, examinations and research will be guided by the dissertation adviser and the dissertation committee, with oversight by members of the M.D./Ph.D. steering committee. The main undertaking at this phase is laboratory research that leads to the Ph.D. dissertation. After completion of doctoral degree requirements, students move to the clinical year of medical school. Students may begin the clinical year of medical school immediately after completion of doctoral degree requirements, regardless of the time in the calendar year, and, 14 to 16 months later, may complete their medical school requirements. These students are exempt from the major part of the fourth year of medical school.

Prospective students submit applications through the American Medical College Application Service. Upon review of the AMCAS documents, qualified applicants are sent supplemental admission materials, including an application for the M.D./ Ph.D. program. Those invited to Richmond for interviews will spend one day in the standard interview for the School of Medicine and will spend a second day interviewing with members of the M.D./Ph.D. steering committee, as well as touring labs of faculty scientists.

Admission of medical students to the Ph.D. phase of training takes place formally following completion of the M-II year of M.D. training. A copy of the student file

is transferred to the Office of Graduate Education and the individual is formally accepted to Ph.D. training by the VCU Graduate School.

The requirements for a combined professional school/graduate school degree in the School of Medicine are equivalent to those required of students seeking a graduate degree alone and are determined by the individual program.

For additional information, please see the program Web site at mdphd.vcu.edu.

Refer to the program search function of the online VCU Bulletins for a complete description of both programs.

Medicine, Doctor of (M.D.)/Doctor of Philosophy (Ph.D.) [combined]

Graduate program director

Gordon L. Archer, M.D.

Senior associate dean for research, School of Medicine garcher@ycu.edu

(804) 827-1469

Additional contacts

Ross Mikkelsen, Ph.D.

Associate director

rmikkels@vcu.edu

(804) 827-1469

Sandra Sorrell Assistant to the director

ssorrell@vcu.edu

(804) 827-1469

Program website: mdphd.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Combined Doctor of Medicine and Doctor of Philosophy

The M.D./Ph.D. program seeks to train physician-scientists for careers that bridge basic and clinical science. Physician-scientists will translate laboratory discoveries into better patient outcomes. The program begins two months prior to the first year of medical school. Students arrive on campus for orientation and complete two laboratory rotations before the start of medical school classes. They complete the first two years of medical school and, after taking the first part of the U.S. National Medical Licensing Examination, enter a Ph.D.-granting department or program as a graduate student. Graduate-level course work, examinations and research will be guided by the dissertation adviser and the dissertation committee, with oversight by members of the M.D./Ph.D. steering committee. The main undertaking at this phase is laboratory research that leads to the Ph.D. dissertation. After completion of doctoral degree requirements, students move to the clinical year of medical school. Students may begin the clinical year of medical school immediately after completion of Ph.D. requirements, regardless of the time in the calendar year, and, 14 to 16 months later, may complete their medical school requirements. These students are exempt from the major part of the fourth year of medical school.

Prospective students submit applications through the American Medical College Application Service. Upon review of the AMCAS documents, qualified applicants are sent supplemental admission materials, including an application for the M.D./Ph.D. program. Those invited to Richmond for interviews will spend one day in the standard interview for the School of Medicine and will spend a second day interviewing with members of the M.D./Ph.D. steering committee, as well as touring labs of faculty scientists.

Admission of medical students to the Ph.D. phase of training takes place formally following completion of the second year of M.D. training. A copy of the student file is transferred to the Office of Graduate Education in the School of Medicine, and the individual is formally accepted for Ph.D. training by the VCU Graduate School.

The requirements for a combined professional school/graduate school degree in the School of Medicine are equivalent to those required of students seeking a graduate degree alone and are determined by the individual program.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on doctoral programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.

Medicine, Doctor of (M.D.)/Health Administration, Master of (M.H.A.) [combined]

Graduate program directorDolores G. Clement, Ph.D., FACHE
Professor and director, dual-degree programs

dclement@vcu.edu (804) 828-0719

Additional contact

Suzanne C. Havasy Coordinator, M.H.A. program shavasy@vcu.edu (804) 828-0719

Program website: had.vcu.edu/prospective/mha

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Health Administration, Master of (M.H.A.)

Health Administration, Master of (M.H.A.)/Information Systems, Master of Science (M.S.) [combined]

Health Administration, Master of (M.H.A.)/Juris Doctor (J.D.) from the University of Richmond or Washington and Lee University [combined] Health Administration, Master of Science in (M.S.H.A.)

Students may indicate their interest in the combined program prior to matriculation or during the first three years of the M.D. program.

Advanced study in health administration and medicine is available through a dual-degree program co-sponsored by the Department of Health Administration and the VCU School of Medicine. The program leads to the awarding of the Doctor of Medicine and Master of Health Administration degrees. The objective of the M.D./M.H.A. program is to provide highly motivated medical students the expertise for management and leadership competency in complex health care organizations. The program may be completed in five years. Applicants for this program are required to meet the admission requirements of each program.

For the combined degree program, course work for the M.H.A. is initiated following completion of the first two or three years of the M.D. program, occupies a full academic year (fall, spring and summer) and extends into a second year, and is taken during a hiatus from the third or fourth year of the M.D. program.

Students interested in the program may contact the School of Medicine Office of Curriculum or the director of the M.H.A. program in the Department of Health Administration (School of Allied Health Professions). For additional information refer to the School of Medicine handbook available on the school's Web site at medschool.vcu.edu.

The M.H.A. curricular sequence of the M.H.A./M.D. degree is shown below. Students take a total of 43 credit hours of M.H.A. course work that includes a three-credit hour internship.

Courses		Credit hours
HADM 602 Health System Organization, Financing and	3	
Performance		
HADM 606 Health Care Managerial Accounting	3	
HADM 607 Financial Management in Health Organizations	3	
HADM 610 Health Care Management Decision Support Systems	3	
HADM 611 Health Care Law and Bioethics	3	
HADM 612 Information Systems for Health Care Management	3	
HADM 614 Health Care Marketing	3	
HADM 615 Health Care Politics and Policy	3	
HADM/ECON 624 Health Economics	3	
HADM 646 Health Care Organization and Leadership	3	
HADM 647 Management of Health Care Organizations	3	
HADM 648 Strategic Management in Health Care Organizations	3	
HADM 649 Human Resources Management in Health Care	3	
HADM 682 Executive Skills I	1	
HADM 693 Internship in Health Administration	3	
Total graduate credit hours required (minimum)		43

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Medicine, Doctor of (M.D.)/Master of Science (M.S.) [combined]

Graduate program director

Gordon L. Archer, M.D. Senior associate dean for research, School of Medicine garcher@vcu.edu (804) 827-1469

Additional contact

Sandra Sorrell Assistant to the director ssorrell@vcu.edu (804) 827-1469

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options and contact information for the following programs:

Human Genetics, Master of Science (M.S.) Medicine, Doctor of (M.D.) Microbiology and Immunology, Master of Science (M.S.) Pharmacology and Toxicology, Master of Science (M.S.) Physiology and Biophysics, Master of Science (M.S.)

Combined Doctor of Medicine and Master of Science

Medical students seeking to expand their competency in the conduct of research may choose the research-intensive, non-thesis curriculum for medical students in one of several master's-level programs within the School of Medicine. This curriculum builds on the core of disciplinary material embedded in the medical

school curriculum in the first two years of training with additional exposure to specialized areas in basic science disciplines. The research experience leads to preparation of a report in the form of a manuscript suitable for publication. The program is designed to be completed within a period of 12 to 15 months.

Contact the graduate program director for additional information.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Medicine, Doctor of (M.D.)/Public Health, Master of (M.P.H.) [combined]

Program accreditation

Liaison Committee on Medical Education (M.D.) Council on Education for Public Health (M.P.H.)

Graduate program director

Lisa S. Anderson, M.P.H.

Director of educational programs, Master of Public Health program lsanders@ycu.edu

(804) 628-2512

Additional contact

Anna P. Rose

Graduate programs coordinator

aprose@vcu.edu

(804) 828-9785

Program website: familymedicine.vcu.edu/education/graduate/dual-degrees/

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Medicine, Doctor of (M.D.)
Public Health, Master of (M.P.H.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Medicine, Doctor of (M.D.)/Public Health, Master of (M.P.H.) [combined]			
Degree:	Semester(s) of entry:	Deadline dates: Applications strongly encouraged	Test requirements: MCAT (acceptable in
M.D. and M.P.H.	Fall	by Jan 1	lieu of GRE scores for this combined professional/ academic degree program) TOEFL

Refer to the program search function of the online VCU Bulletins for a complete description of the individual degree programs.

Note: Students applying to the joint M.D./M.P.H. program should be accepted to the VCU School of Medicine prior to applying to the M.D./M.P.H. Program. Students must apply separately to each program. Applications to the M.P.H. program are made to the VCU Office of Graduate Admissions.

In addition to the general admission requirements of the VCU Graduate School, applicants must present the following qualifications.

- Prior degree: Students must hold a bachelor's degree from an accredited institution, with a minimum GPA of 3.0 on a 4.0 scale in all undergraduate and any other graduate study. Official copies of transcripts for all prior degrees earned must be submitted to the VCU Office of Graduate Admissions.
- Test scores: The M.P.H. program normally requires GRE scores, but for the combined M.D./M.P.H., students may submit MCAT scores provided for admission to the School of Medicine in lieu of GRE scores.
- TOEFL: International students must submit TOEFL or IELTS scores.
 Minimum TOEFL score is 600 (paper-based), 250 (computer-based) or 100
 (Internet-based); IELTS minimum score is 7.0. Test score requirements may
 be waived for international students who have received a medical degree
 (M.D.) in the U.S. Contact the program coordinator for more information.

Students must also submit the following materials with their applications:

- Letters of recommendation from three individuals who can assess applicant qualifications for graduate school; at least one academic reference is required, but two are preferred. Most appropriate are letters from past professors or work supervisors.
- Current version of curriculum vitae or resume. Include experience and/or education relevant to study in public health.
- 3. Personal statement following these guidelines:

- a. The document should be 1.5 or double-spaced with one-inch margins, in a font no smaller than 11 points.
- b. The document should cover the following issues in two to five pages:
- Description of the applicant's career goals
- Why the applicant wishes to pursue an M.P.H. degree
- How an M.P.H. degree will help the applicant achieve her/his career goals
- Description of applicant's particular areas of interest in public health (e.g., maternal and child health, cancer epidemiology)
- Why VCU's M.P.H. program best fits the student's public health interests
- · What applicant plans to do in the first few years after graduation

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Division of Epidemiology in the Department of Family Medicine and Population Health in the School of Medicine offers a program for VCU medical students to obtain a Master of Public Health degree in conjunction with their medical training. The M.D./M.P.H. combined-degree program provides an opportunity for medical students who wish to pursue a public health or research career to graduate from medical school trained in both clinical and preventive, population-oriented medicine. Graduates from this program are prepared for positions in preventive medicine, primary care, research, community-based health centers and state and local health departments. Students complete a set of core and required courses plus six credit hours of elective course work and a capstone project.

The objective of the combined program is to provide high quality and in-depth training in public health to qualified medical students. The five-year program includes four years of medical school and one year of study in the M.P.H. program. During the M.P.H. year, students take a minimum of 30 credit hours of didactic courses. To complete the M.P.H. requirements, students receive 12 credit hours for successful academic work during the first two years of medical school and take a minimum of one public health elective during the M-4 year.

Note: Students may register for the M.P.H. year either prior to entering medical school or after the M-3 year and prior to M-4 electives. Enrollment in the dual-degree program requires admission into both the School of Medicine and the Graduate School. Students must successfully complete all required course work to receive both degrees at the end of the five years.

The mission of the M.P.H. program is to engage students in an experiential, learner-centered environment, collaborate with public health partners in Central Virginia to promote health equity and community wellness, and foster lifelong inquiry and discovery in interdisciplinary, translational research that improves human health.

The overall goal of the M.P.H. program is to educate students to become well-grounded in the essential knowledge, skills and attitudes of public health and demonstrate their ability to apply these essentials through course work, internships

and the M.P.H. capstone project. This program is designed to provide students with the skills required to advance to positions as public health practitioners in a broad spectrum of positions and settings and who can perform the following:

- 1. Administer public health programs
- 2. Collect, analyze and evaluate public health data
- 3. Plan, implement and evaluate public health interventions
- Apply results of evaluations and data analyses to policy development as necessary
- 5. Promote public health through educational campaigns

The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of public health and an ability to synthesize and apply this information to the identification of key areas of practice and research in public health. Students will develop educational competencies outlined by the M.P.H. program. These competencies cover the foundational knowledge necessary for a public health practitioner to both communicate the core of public health knowledge and express the design, results and interpretation of various public health interventions, evaluations, and data collection and analysis efforts to a variety of potential audiences.

Student learning outcomes

The M.P.H. program trains students to develop the following educational competencies, selected from the Association of Schools of Public Health's "Master's Degree in Public Health Core Competency Model," August 2006.

Biostatistics:

- a. Describe the roles biostatistics serves in the discipline of public health
- Describe basic concepts of probability, random variation and commonly used statistical probability distributions
- Describe preferred methodological alternatives to commonly used statistical methods when assumptions are not met
- Distinguish among the different measurement scales and the implications for selection of statistical methods to be used based on these distinctions
- Apply descriptive techniques commonly used to summarize public health data
- f. Apply common statistical methods for inference
- Apply descriptive and inferential methodologies according to the type of study design for answering a particular research question
- h. Apply basic informatics techniques with vital statistics and public health records in the description of public health characteristics and in public health research and evaluation
- i. Interpret results of statistical analyses found in public health studies
- j. Develop written and oral presentations based on statistical analyses for both public health professionals and educated lay audiences

11. Environmental health sciences:

- Describe the direct and indirect human, ecological and safety effects of major environmental and occupational agents
- Describe genetic, physiologic and psychosocial factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards
- Describe federal and state regulatory programs, guidelines and authorities that control environmental health issues
- d. Specify current environmental risk assessment methods
- Specify approaches for assessing, preventing and controlling environmental hazards that pose risks to human health and safety
- f. Explain the general mechanisms of toxicity in eliciting a toxic response to various environmental exposures
- Discuss various risk management and risk communication approaches in relation to issues of environmental justice and equity

8. Epidemiology:

a. Identify key sources of data for epidemiologic purposes

- b. Describe a public health problem in terms of magnitude, person, time and place
- Explain the importance of epidemiology for informing scientific, ethical, economic and political discussion of health issues
- d. Apply the basic terminology and definitions of epidemiology
- e. Calculate basic epidemiology measures
- f. Communicate epidemiologic information to lay and professional audiences
- g. Draw appropriate inferences from epidemiologic data
- h. Evaluate the strengths and limitations of epidemiologic reports

9. Health policy and management:

- Identify the main components and issues of the organization, financing and delivery of health services and public health systems in the U.S.
- b. Describe the legal and ethical bases for public health and health services
- c. Discuss the policy process for improving the health status of populations

4. Social and behavioral sciences:

- Identify basic theories, concepts and models from a range of social and behavioral disciplines that are used in public health research and practice
- Identify the causes of social and behavioral factors that affect health of individuals and populations
- c. Describe steps and procedures for the planning, implementation and evaluation of public health programs, policies and interventions
- d. Apply evidence-based approaches in the development and evaluation of social and behavioral science interventions
- e. Apply ethical principles to public health program planning, implementation and evaluation

6. Communication and informatics

- a. Describe how societal, organizational and individual factors influence and are influenced by public health communications
- b. Demonstrate effective written and oral skills for communicating with different audiences in the context of professional public health activities

3. Diversity and culture:

- Describe the roles of history, power, privilege and structural inequality in producing health disparities
- Explain how professional ethics and practices relate to equity and accountability in diverse community settings
- Differentiate among availability, acceptability and accessibility of health care across diverse populations

4. Leadership:

- Engage in dialogue and learning from others to advance public health goals
- b. Demonstrate transparency, integrity and honesty in all actions

3. Public health biology:

 Apply biological principles to development and implementation of disease prevention, control or management programs

2. Professionalism:

- Apply basic principles of ethical analysis (e.g. the Public Health Code of Ethics, human rights framework, other moral theories) to issues of public health practice and policy
- b. Apply evidence-based principles and the scientific knowledge base to critical evaluation and decision-making in public health
- c. Apply the core functions of assessment, policy development and assurance in the analysis of public health problems and their solutions
- d. Promote high standards of personal and organizational integrity, compassion, honesty and respect for all people
- e. Distinguish between population and individual ethical considerations in relation to the benefits, costs and burdens of public health programs

- f. Appreciate the importance of working collaboratively with diverse communities and constituencies (e.g. researchers, practitioners, agencies and organizations)
- Program planning:
 - Differentiate among goals, measurable objectives, related activities and expected outcomes for a public health program
 - b. Differentiate the purposes of formative, process and outcome evaluation

Degree requirements

The Master of Public Health program prepares students committed to public health careers in the public, private or nonprofit sectors. Public health works to prevent health problems in populations before these problems occur. The M.P.H. provides a rigorous curriculum to help students develop the analytic and critical reasoning skills to improve population health. The program boasts experiential learning, a highly interactive environment, accessible and approachable faculty and student involvement in important projects.

In addition to general VCU Graduate School graduation requirements, students are required to successfully complete minimum of 30 credit hours of formal course work and practicum, a 20-hour community-based learning experience, attendance at 12 public health seminars, and a capstone project. In addition, medical students will complete a public health elective during the M-4 year at a placement approved by the M.P.H. program director, in lieu of the required public health internship.

The M.P.H. program can be individualized to meet the varied needs and interests of students. The program offers many electives, allowing students to tailor the program to meet educational objectives, and it is flexible enough to accommodate students who enter the program with various backgrounds and experiences.

Capstone project: The culminating work in the M.P.H. program is the capstone project. The project is a practical experience that allows the student to apply what has been learned in the didactic components of the curriculum to a focused project. The goal is to enhance the student's academic experience through the application of public health concepts and skills in a supervised experience. Students are required to synthesize the literature; analyze, assess or evaluate quantitative or qualitative data; and in general apply theory and integrate knowledge gained and principles in situations that approximate some aspects of professional practice. With this mentored experience, students are able to both broaden their skills and hone their proficiency in a specific area of public health. The major product of this culminating experience is expected to vary depending on the educational goals of the student, but could include one of the following:

- 1. Manuscript suitable for publication in a peer-reviewed journal
- 2. Comprehensive disease-related report
- 3. Policy analysis report
- 4. Health promotion materials (e.g., brochures/posters/fliers, educational video games, website content, etc.) on a specific disease area
- 5. Needs assessment for a specific population
- 6. Development and implementation of target population surveys
- 7. Program evaluation

At a minimum, the capstone experience will require the integration of multiple major competencies used by a public health professional. In fulfilling the capstone requirement, each candidate must: (a) submit a formal written paper of sufficient depth and rigor and (b) satisfactorily complete a poster presentation of the project chosen as the basis for the written paper at an appropriate venue (e.g., research forum, refereed conference, etc.) approved by the M.P.H. program director.

Non-didactic program requirements

In addition to course work, students are required to complete the following noncurricular requirements for the M.P.H. degree:

- 1. Attendance at 12 public health seminars
- 2. Twenty hours of community-based service-learning

Curriculum requirements for the combined M.D./ M.P.H. program

Course Credit hours

Fall semester (after M-3 training)	13.5
BIOS 547 Applied Data Analysis in Public Health I	3
EPID 547 Applied Data Analysis Lab I	1.5
EPID 580 Public Health Ethics	1
EPID 593 MPH Practicum	2
HCPR 601 Introduction to Health Policy	3
Elective (See list below.)	3
Spring semester (after M-3 training)	16.5
BIOS 548 Applied Data Analysis in Public Health II	3
EPID 548 Applied Data Analysis Lab II	1.5
EPID 604 Principles of Environmental Health	3
EPID 694 MPH Capstone Project	3
SBHD 605 Introduction to Social and Behavioral Health	3
Elective (See list below.)	3
Total graduate credit hours required (minimum)	30

Selected course work completed during the M-1 and M-2 years of study for application toward the M.D. accounts for 12 credit hours toward the M.P.H. degree. This includes a waiver of the core epidemiology course EPID 571, due to training in population health in the M.D. curriculum. The public health internship requirement is fulfilled through completion of a public health elective in the M-4 year, after the student completes the M.P.H. year. This elective occurs at a public health agency that is approved by the M.P.H. program director.

Electives

Students take a minimum of six credit hours of elective course work selected according to a student's area(s) of interest in public health. These may include the following courses:

BIOS 571 Clinical Trials	3
EPID 600 Introduction to Public Health	3
EPID 601 Contemporary Issues and Controversies in Public	3
Health	
EPID 603 Public Health Policy and Politics	3
EPID 620 Cancer Epidemiology	3
EPID 622 Maternal and Child Health	3
EPID 624 Chronic Disease Epidemiology	3
EPID 646 Epidemiology of Psychiatric and Substance Use	3
Disorders	
EPID 648 Behavioral Epidemiology	3
SBHD 608 Health Communication	3
SBHD 632 Health Disparities and Social Justice	3
SBHD 636 Community-based Participatory Research	3

Degree candidacy requirements

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

The M.P.H. program student handbook is available upon request.

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Addiction Studies, Certificate in (Post-baccalaureate graduate certificate) with a concentration in advanced international addiction studies

Graduate program director

Mary E. Loos, Ph.D.

Associate professor, Department of Psychology

meloos@vcu.edu (804) 828-8019

Program website: ipas.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Addiction Studies, Certificate in (Post-baccalaureate graduate certificate) with a concentration in advanced international addiction studies

Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Certificate	Fall	Jul 13	TOEFL

Special requirements: Prospective students will find application materials on the VCU IPAS website. Application forms, reference letters and official university transcripts should be sent to the VCU program director, Mary Loos, Ph.D., as instructed on the website. Once accepted, students are enrolled in all three universities and have access to the resources associated with all three schools. No on-campus classroom time is required to complete the degree.

Through a collaborative program between VCU, King's College London and the University of Adelaide in Australia, students complete a program of study using distance-learning technologies to obtain a Certificate in Addiction Studies.

In addition to the general admission requirements of the VCU Graduate School, applicants must:

- Have qualified in a related discipline for an honors degree (level 2A or 1) or a bachelor's degree from a recognized tertiary institution in the U.S. Any applicant who does not meet this criterion should have (in addition to an honors or bachelor's degree) significant professional work experience and approval of the program committee.
- Have a high level of proficiency in English, demonstrated by completion of a
 university qualification studied in the English language, or by meeting one of
 the following English language requirements: an IELTS score of 7.0, a
 TOEFL score of 600 (paper-based) or 260 (computer-based), or grade C or
 above in GCSE English.

Students who are enrolled in the Certificate in Addiction Studies intermediate concentration and are maintaining a minimum GPA of 3.0 may elect to change their concentration to the advanced concentration at any time during their enrollment with the permission of the program director. Students will be awarded only one certificate, however, which will reflect their highest level of attainment.

Students who have completed the Certificate in Addiction Studies intermediate concentration may also, after a period away from study, choose to apply for the advanced concentration addiction studies certificate. Students wishing to continue their studies through this mechanism may count the earlier courses toward the advanced concentration, as long as they meet all admission requirements of the Graduate School and pending surrender of the lower-level credential before being awarded the more-advanced credential. Courses taken more than four years prior to the time of the student's application will not be considered transferable and will need to be repeated.

Students completing either concentration in the Certificate in Addiction Studies may apply to the Master of Science in Addiction Studies program, also known as the International Programme in Addiction Studies and, if accepted, have their courses count toward that degree as long as they meet all admission requirements of the Graduate School. Courses taken more than four years prior to enrollment in the M.S. program will not be considered current and must be repeated.

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It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission

The mission of the addiction studies certificate with a concentration in advanced international addiction studies is to offer students around the world an in-depth, evidence-based, multidimensional and cross-cultural understanding of both essential and advanced topics in the field of addiction studies, including biological, psychological and public health perspectives on the etiology and treatment of addiction and evidence-based addiction policy. This will be accomplished through distance-learning technologies.

Program goals

- Knowledge of field of addiction science: Students in the program will
 develop an in-depth knowledge of the field of addiction science to enhance
 their ability to succeed in a variety of addiction-related settings.
- Ability to synthesize and apply advanced addiction-related knowledge: Students of the program will be able to synthesize and apply advanced addiction-related knowledge, including comparative international perspectives and approaches, to address key issues related to the treatment or prevention of addiction.
- 3. Understanding and application of experimental results from addiction-related research: Students will develop the ability to interpret experimental approaches and results, and apply them to address key questions in addiction science and policy, as well as conceptualize the translation from research to policy, treatment or prevention.

 Communication skills related to addiction: Students will develop skills in communicating both core knowledge of addiction as well as the interpretation of research findings in a variety of formats.

Student learning outcomes

- Written communication skills: The candidate will use effective written communication skills to present information related to addiction causes, interventions, treatments and policies using appropriate vocabulary, figures, tables and citations.
- Advanced knowledge of addiction science: The student will demonstrate an advanced level of knowledge of the current elements of addiction science.
- Familiarity and understanding of research: Students will demonstrate an advanced level of fluency with the research literature, become familiar with research methods used in addiction science and demonstrate the ability to evaluate and critique publications.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students are required to successfully complete 24 credit hours in the six required graduate courses.

Curriculum requirements

Courses	Credit hours
IPAS 600 The Biological Basis of Addiction	4
IPAS 600 The Biological Basis of Addiction IPAS 601 Treatment of Addiction: Psychosocial Interventions	4
IPAS 602 Public Health Issues and Approaches to Addiction	4
IPAS 603 Addiction Policy	4
IPAS 604 Treatment of Addiction: Pharmacotherapies	4
IPAS 605 Treatment of Addiction: Critical Issues	4
Total graduate credit hours (minimum)	24

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

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Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Addiction Studies, Certificate in (Post-baccalaureate graduate certificate) with a concentration in intermediate international addiction studies

Graduate program director

Mary E. Loos, Ph.D.

Associate professor, Department of Psychology

meloos@vcu.edu

(804) 828-8019

Program website: ipas.vcu.edu

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Admission requirements

Addiction Studies, Certificate in (Post-baccalaureate graduate certificate) with a concentration in intermediate international addiction studies

Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Certificate	Fall	Jul 1	TOEFL

Special requirements: Prospective students will find application materials on the VCU IPAS website. Application forms, reference letters and official university transcripts should be sent to the VCU program director, Mary Loos, Ph.D., as instructed on the website. Once accepted, students are enrolled in all three universities and have access to the resources associated with all three schools. No on-campus classroom time is required to complete the degree.

Through a collaborative program between VCU, King's College London and the University of Adelaide in Australia, students complete a program of study using distance-learning technologies to obtain a Certificate in Addiction Studies.

In addition to the general admission requirements of the VCU Graduate School, applicants must:

- Have qualified in a related discipline for an honors degree (level 2A or 1) or a bachelor's degree from a recognized tertiary institution in the U.S. Any applicant who does not meet this criterion should have (in addition to an honors or bachelor's degree) significant professional work experience and approval of the program committee.
- Have a high level of proficiency in English, demonstrated by completion of a
 university qualification studied in the English language, or by meeting one of
 the following English language requirements: an IELTS score of 7.0, a
 TOEFL score of 600 (paper-based) or 260 (computer-based), or grade C or
 above in GCSE English.

Students who are enrolled in the Certificate in Addiction Studies intermediate concentration and are maintaining a minimum GPA of 3.0 may elect to change their concentration to the advanced concentration at any time during their enrollment with the permission of the program director. Students will be awarded only one certificate, however, which will reflect their highest level of attainment.

Students who have completed the Certificate in Addiction Studies intermediate concentration may also, after a period away from study, choose to apply for the advanced concentration addiction studies certificate. Students wishing to continue their studies through this mechanism may count the earlier courses toward the advanced concentration, as long as they meet all admission requirements of the Graduate School and pending surrender of the lower-level credential before being awarded the more-advanced credential. Courses taken more than four years prior to the time of the student's application will not be considered transferable and will need to be repeated.

Students completing either concentration in the Certificate in Addiction Studies may apply to the Master of Science in Addiction Studies program, also known as the International Programme in Addiction Studies and, if accepted, have their courses count toward that degree as long as they meet all admission requirements of the Graduate School. Courses taken more than four years prior to enrollment in the M.S. program will not be considered current and must be repeated.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program mission

The mission of the addiction studies certificate with a concentration in intermediate international addiction studies is to offer students around the world an in-depth, evidence-based, multidimensional and cross-cultural understanding of both essential and advanced topics in the field of addiction studies, including biological, psychological and public health perspectives on the etiology and treatment of addiction and evidence-based addiction policy. This will be accomplished through distance-learning technologies.

Program goals

- Knowledge of field of addiction science: Students in the program will
 develop an in-depth knowledge of the field of addiction science to enhance
 their ability to succeed in a variety of addiction-related settings.
- Ability to synthesize and apply advanced addiction-related knowledge: Students of the program will be able to synthesize and apply advanced addiction-related knowledge, including comparative international perspectives and approaches, to address key issues related to the treatment or prevention of addiction.
- 3. Understanding and application of experimental results from addiction-related research: Students will develop the ability to interpret experimental approaches and results, and apply them to address key questions in addiction science and policy, as well as conceptualize the translation from research to policy, treatment or prevention.
- Communication skills related to addiction: Students will develop skills in communicating both core knowledge of addiction as well as the interpretation of research findings in a variety of formats.

Student learning outcomes

- Written communication skills: The candidate will use effective written communication skills to present information related to addiction causes, interventions, treatments and policies using appropriate vocabulary, figures, tables and citations.
- Advanced knowledge of addiction science: The student will demonstrate an advanced level of knowledge of the current elements of addiction science.
- Familiarity and understanding of research: Students will demonstrate an advanced level of fluency with the research literature, become familiar with research methods used in addiction science and demonstrate the ability to evaluate and critique publications.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students are required to successfully complete 12 credit hours in the three required graduate courses.

Curriculum requirements

Courses	Credit hours
IPAS 600 The Biological Basis of Addiction	4
IPAS 601 Treatment of Addiction: Psychosocial Interventions	4
IPAS 602 Public Health Issues and Approaches to Addiction	4
Total graduate credit hours required (minimum)	12

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Addiction Studies, Master of Science (M.S.)

Graduate program director

Mary E. Loos, Ph.D.

Associate professor, Department of Psychology

meloos@vcu.edu (804) 828-8019

Program website: ipas.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Admission requirements

Addiction Stud	dies, Master of Science (M.S.)	
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
M.S.	Fall	Jul 1	TOEFL

Special requirements: Prospective students will find application materials on the VCU IPAS website. Application forms, reference letters and official university transcripts should be sent to the VCU program director, Mary Loos, Ph.D., as instructed on the website. Once accepted, students are enrolled in all three universities and have access to the resources associated with all three schools. No on-campus classroom time is required to complete the degree.

Through a collaborative program between VCU, King's College London and the University of Adelaide in Australia, students complete a program of study using distance-learning technologies to obtain a Master of Science in Addiction Studies.

In addition to the general admission requirements of the VCU Graduate School, applicants must:

- Have qualified in a related discipline for an honors degree (level 2A or 1) or a bachelor's degree from a recognized tertiary institution in the U.S. Any applicant who does not meet this criterion should have (in addition to an honors or bachelor's degree) significant professional work experience and approval of the program committee.
- Have a high level of proficiency in English, demonstrated by completion of a
 university qualification studied in the English language, or by meeting one of
 the following English language requirements: an IELTS score of 7.0, a
 TOEFL score of 600 (paper-based) or 260 (computer-based), or grade C or
 above in GCSE English.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The mission of the International Program in Addiction Studies leading to a Master of Science in Addiction Studies degree is to offer students cross-cultural exposure to the critical prevention, treatment, research and policy issues facing the field. Through a collaboration arrangement including VCU, King's College London and the University of Adelaide in Australia, students complete a program of study using distance-learning technologies to obtain the degree. The program is designed to prepare students for local, national and international policy positions, prevention/treatment program management and other leadership positions in the addictions field. This program will speed the dissemination of the latest international addictions-related knowledge, especially to remote locations around the world, and help students compare international perspectives and translate this knowledge into more effective prevention and treatment practices and evidence-based policies within their own countries.

Students in the program will:

- Demonstrate a detailed knowledge of the field of addiction science (including comparative international policies and practices) to prepare them for leadership roles in a variety of settings (including addiction research, policy and treatment venues).
- Be able to synthesize and apply addiction-related knowledge, including comparative international perspectives and approaches, to address key issues related to the advancement of addiction science.
- 3. Develop the ability to design, implement and interpret experimental approaches which address key questions in addiction science.
- Communicate both core knowledge of addiction as well as experimental design, result and interpretation in a variety of formats.

Student learning outcomes

Integrated knowledge of addiction science: The student will demonstrate an
appropriate level of knowledge of the current elements of addiction science
as related to disciplinary specialization and a more detailed understanding of

- the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publication.
- Problem-solving skills: Students will demonstrate an appropriate level of skill
 in the identification and selection of meaningful problems to be addressed in
 addiction research and practice, including the ability to defend said
 identifications and to design and develop appropriate methods to solve said
 problems as measured by rubric.
- Research design: Students will demonstrate the achievement of an appropriate level of competence in the ability to appraise, develop and implement research studies.
- 4. Written communication skills: The candidate will use effective written communication skills to present information related to addiction causes, interventions, treatments and policies using appropriate vocabulary, figures, tables and citations.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students are required to successfully complete a minimum of 36 credit hours, which can be done either full time (12 months) or part time (24 months). Six of the required credit hours are assigned to a final research project examining a relevant addictions-related topic. VCU, King's College London and the University of Adelaide confer degrees jointly through a single diploma.

Curriculum requirements

Courses	Credit hour
IPAS 600 The Biological Basis of Addiction	4
IPAS 601 Treatment of Addiction: Psychosocial Interventions	4
IPAS 602 Public Health Issues and Approaches to Addiction	4
IPAS 603 Addiction Policy	4
IPAS 604 Treatment of Addiction: Pharmacotherapies	4
IPAS 605 Treatment of Addiction: Critical Issues	4
IPAS 606 Research Methodology in Addictions	6
IPAS 692 Research Project in Addictions	6
Total graduate credit hours (minimum)	36

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Anatomy and Neurobiology, Master of Science (M.S.)

Graduate program director

Raymond J. Colello, Ph.D.

Associate professor, Department of Anatomy and Neurobiology rcolello@vcu.edu

(804) 828-2262

Additional contact

Sharon B.C. Toussaint Executive secretary stoussaint@vcu.edu (804) 828 9623

Program website: anatomy.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Anatomy and Neurobiology, Master of Science (M.S.)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
M.S.	Fall preferred	Applications received prior to Jan 15 given priority consideration	TOEFL if
	ements: Domestic studen	ts apply through the Gradua	ate Admissions office;

In addition to the general admission requirements of the VCU Graduate School, successful applicants will typically have the following credentials:

- Baccalaureate degree or its equivalent at the time of enrollment with a minimum overall GPA of 3.2
- 2. Combined GRE scores of at least 300 for the verbal plus quantitative (1200 based on the previous scale) and 4.0 analytical score
- Test of English as a Foreign Language examination with a minimum score of 100 (IBT), 250 (CBT) or 600 (PBT), or 6.5 on the IELTS for foreign applicants who do not use English as their native language

Although there are no absolute course requirements for admission, fundamental knowledge of general and organic chemistry and biology are considered necessary to pursue advanced studies, and upper-level courses in molecular and cellular biology are desirable. Previous research experience or demonstration of a serious interest in a research-oriented career is also desirable. A personal statement describing the applicant's research experience and interests, as well as letters of reference from previous supervisors, are necessary and helpful in determining an applicant's suitability for this curriculum. Official transcripts of all graduate and undergraduate records must be mailed from the college or university registrar.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty

of the university through their elected representatives to the University Graduate

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission

The M.S. in Anatomy and Neurobiology program offers a two-year graduate curriculum of formal instructional activities and research training mentored by the members of the faculty leading to the terminal M.S. degree. The program prepares students for technical careers in neurobiological research laboratories in academic, private and government institutions. The program also provides a strong foundation for students who choose to continue onto doctoral training.

This is a research-oriented degree program comprised of graduate course work and supervised research leading to a master's thesis. The M.S. program involves approximately one year of course work and a research thesis performed under the supervision of a faculty adviser.

Program goals

- The program is designed to provide students with the skills required to
 advance to positions as bioscience researchers, trainers and technicians in a
 broad spectrum of positions. The structure of the program provides a
 framework for the progressive development of a mastery of the current state
 of the subject matter of bioscience, an ability to synthesize this information
 and apply this foundation to the identification of key areas of investigation/
 experimentation in bioscience.
- The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified.
- 3. In addition, the program will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences. The program will prepare students to secure positions in their chosen career goals (medical school, doctoral studies, employment in academic or private laboratories).

Student learning outcomes

- Experimental design: Degree candidates will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments.
- 2. Communication skills: Degree candidates will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids. The candidate will also demonstrate the achievement of an appropriate level of written communication skills with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations.
- Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems.
- General knowledge of neurobiology and biosciences: Degree candidates will
 demonstrate an appropriate level of knowledge of the current elements of
 neurobiology and the biosciences as related to disciplinary specialization and

- a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications.
- Employment or acceptance to advanced degree program: Degree candidates
 will secure positions in their chosen career goals (medical school, doctoral
 studies, employment in academic or private laboratories).

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must complete a minimum of 66 graduate credit hours. A minimum cumulative GPA of 3.0 must be maintained. Students must receive a minimum grade of B for all required courses.

A student who receives a grade of C in a required course shall repeat the course. A second grade of C in a required course shall result in dismissal from the program.

There is no expectation of the time required to complete the master's degree; usually two years of study are necessary to complete the requirements. At the appropriate time in their research, students will prepare a thesis and schedule a final oral defense of the thesis. The final oral examination (defense of the thesis) will cover the subject of the candidate's dissertation and related basic science course work

Curriculum requirements

Courses	Credit hours
Required courses	24
ANAT 610 Systems Neuroscience	4
ANAT 690 Anatomy and Neurobiology Seminar (one-credit course taken a minimum of four semesters)	4
BIOC/MICR 503 Biochemistry, Cell and Molecular Biology	5
BIOC/MICR 504 Biochemistry, Cell and Molecular Biology	5
IBMS 600 Laboratory Safety	1
NEUS 609 Cellular and Molecular Neuroscience	4
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	1
Directed research	42
ANAT 697 Directed Research (1-15 variable credit course)	42

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Anatomy and Neurobiology, Master of Science (M.S.) with a concentration in molecular biology and genetics

Graduate program director

Gail E. Christie, Ph.D.

Professor, Department of Microbiology and Immunology christie@vcu.edu

(804) 828-9093

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Program website: vcu.edu/mbg

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Anatomy and Neurobiology, Master of Science (M.S.) Neuroscience, Doctor of Philosophy (Ph.D.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Anatomy and Neurobiology, Master of Science (M.S.) with a concentration in molecular biology and genetics			
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements GRE; TOEFL for
	Fall	Deadline date rolling, preference given to applications received by Jan 17	native languague is

Special requirements:

Applications for the program should be submitted to Molecular Biology and Genetics – M.S. selected from the drop-down menu of programs of the VCU online graduate application form. The degree awarded will be a Master of Science in Anatomy and Neurobiology.

In addition to the general admission requirements of the VCU Graduate School, applicants must have earned or expect to earn a baccalaureate or equivalent degree, and must have demonstrated a superior knowledge of biology, chemistry, physics and mathematics. Laboratory experience is also strongly recommended. The Graduate Record Examination is required, as are letters of recommendation and a letter summarizing the applicant's goals. International applicants who do not use English as their native language must take the Test of English as a Foreign Language examination.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty

of the university through their elected representatives to the University Graduate

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The molecular biology and genetics curriculum is an integrated interdisciplinary program of study that builds on the graduate programs of participating departments in the School of Medicine. The master's curriculum is designed to be an intensive course of study that will provide students with the skills required to advance to research-oriented careers in biotechnology or provide the foundation for further graduate study toward a Ph.D.

It is expected that the program should be completed in approximately two to twoand-one-half years.

- The curriculum includes core, specialization and elective courses. Electives drawn from various departments allow individual specialization.
- 2. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience, an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation. The program relates this framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified.
- In addition, the program will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.
- The final three semesters include a research project conducted under the guidance of a selected faculty mentor and culminates in the presentation and defense of a master's thesis.

Participating faculty are associated not only with programs and departments within the School of Medicine, but also with the VCU Massey Cancer Center, the Philips Institute for Oral and Craniofacial Molecular Biology (School of Dentistry), the Institute of Structural Biology and Drug Discovery (School of Pharmacy) and the VCU Center for the Study of Biological Complexity (VCU Life Sciences).

The interdisciplinary approach to the solution of biological problems provided by this training is designed to develop in students the flexibility and problem-solving skills necessary for success in a variety of scientific career opportunities or further graduate study.

Student learning outcomes

- Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 2. General knowledge of sciences: Degree candidates will demonstrate an appropriate level of knowledge of the current elements of the biosciences as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications, as measured by rubric.

- Communication skills: Degree candidates will demonstrate that an appropriate level of oral, written and visual communication skills have been acquired.
 - a. Oral communication skills: Degree candidates will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric.
 - b. Written communication skills: Degree candidates will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.
- Experimental design: Degree candidates will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, the interdisciplinary master's curriculum in molecular biology and genetics requires a minimum of 48 credit hours, at least half of which must be course work restricted to graduate students. The curriculum includes19 credit hours of required core course work and 29 additional credit hours of required course work, directed research and research seminar course work, and additional approved course work, as listed below. M.S. candidates must pass a final oral examination. A written thesis approved by the student's graduate advisory committee completes the requirements leading to the M.S. degree.

Curriculum requirements

Courses	Credit hours
Required core courses	19
BIOC 530 Biochemistry, Cell and Molecular Biology Module 1: Protein Structure and Function*	2
BIOC 531 Biochemistry, Cell and Molecular Biology Module 2: Basic Metabolism*	1
BIOC 532 Biochemistry, Cell and Molecular Biology Module 3: Central Dogma of Molecular Biology*	1
BIOC 533 Biochemistry, Cell and Molecular Biology Module 4: Lipids/ Membranes and Bioenergetics*	1
IBMS 600 Laboratory Safety	1
IBMS 620 Laboratory/Clinical Rotations; sections 004 and 005** (two-credit course taken twice)	4
MICR/BIOC 504 Biochemistry, Cell and Molecular Biology	5
MICR 607 Techniques in Molecular Biology and Genetics	2
MICR 693 Topics in Molecular Biology and Genetics (MBG journal club, must take at least once)	1
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific	1
Conduct or OVPR 603 Responsible Conduct of Research	
Other required course work	29
Students must select two of the following four courses:	
ANAT 610 Systems Neuroscience	4
ANAT 620 Scientific Writing and Grantsmanship	2
NEUS 609 Cellular and Molecular Neuroscience	4
PHIS 501 Mammalian Physiology	5
PHIS 620 Ion Channels in Membranes	3
Directed research and seminar	

ANAT 697 Directed Research and/or MICR 697 Directed Research in Microbiology (Note: Students must take a minimum of one credit hour of

directed research every semester of enrollment in the program after the first year of study.)

MICR 690 Microbiology Research Seminar (section 002, MBG; one-credit course) (Note: Students must take a minimum of one credit hour of research seminar course work every fall and spring semester of enrollment in the program.)

Students may take additional course work with the approval of their graduate program directors.

Total graduate credit hours required (minimum)

- * This requirement may also be satisfied with BIOC 503 Biochemistry, Cell and Molecular Biology (five credit hours).
- ** This requirement may also be satisfied, under certain circumstances, with MICR 608 or MICR 609 Introduction to Microbiology and Immunology Research (three credit hours; section 002). Consult with the program director.

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

M.S. students in the MBG curriculum must prepare a formal written research plan and make an oral presentation of their thesis research proposals and progress reports to their graduate advisory committees prior to the beginning of the second year of residency. The student's knowledge in the area of the proposed research, current research accomplishments and the feasibility of the proposed research project will be evaluated by the GAC. Successful completion of this review is required for continuance in the program and constitutes admission to candidacy.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Biochemistry, Doctor of Philosophy (Ph.D.)

Graduate program director

Tomasz K. Kordula, Ph.D.

Associate professor, Department of Biochemistry and Molecular Biology tkordula@vcu.edu (804) 828-0771

Program website: biochemistry.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Biochemistry, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Biochemistry, Master of Science (M.S.)

Biochemistry, Master of Science (M.S.) with a concentration in molecular biology and genetics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Biochemistry, Doctor of Philosophy (Ph.D.)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall	Applications received	d GRE, MCAT or DAT
		prior to Jan 15 given	
		priority consideration	

Special requirements: MCAT or DAT acceptable in lieu of GRE for combined professional/academic degree programs.

Applications for the program must be submitted to the Biomedical Sciences Doctoral Portal – School of Medicine – Ph.D. selected from the drop-down menu of programs on the VCU online application form.

In addition to the general admission requirements of the VCU Graduate School, successful applicants will typically have the following credentials:

- A baccalaureate degree or its equivalent at the time of enrollment, with an undergraduate GPA of 3.5
- 2. Current GRE scores (taken within the past five years), with scores at the 75th percentile or greater preferred
- TOEFL scores of 600 (pBT), 250 (cBT) or 100 (iBT) for individuals for whom English is a second language; or 6.5 on the IELTS (To report GRE or TOEFL score, use VCU Code 5570.)
- 4. A personal statement that includes: long-term career goals to assess reasons behind the application; how a Ph.D. in biomedical science helps achieve those goals; the factors motivating a career in research; research experience, including dates, places and duration
- 5. Three letters of recommendation that speak to the scientific competency and experience of the applicant
- The equivalent of two semesters of general chemistry, two semesters of organic chemistry and two semesters of upper-level biology courses (e.g. cell biology, molecular biology, biochemistry, genetics, neuroscience, physiology, biophysics, etc.)

Students who plan to eventually work toward the Ph.D. degree in biochemistry at VCU should apply directly to the Ph.D. program and forego the master's degree. However, applicants who are unsure if they want to earn a Ph.D. and desire experience in biomedical research before making this decision will be well-served by the M.S. program. Outstanding performance in the M.S. program can help students gain admittance to a doctoral program at VCU or elsewhere. Master's students who wish to gain admission to the Ph.D. program should submit the following documents to the graduate program director: (1) a letter making this request, which should include justification for the request, career goals, the name of a proposed Ph.D. adviser and a brief description of proposed Ph.D. research project, (2) VCU graduate transcript and (3) a letter of support from proposed Ph.D. adviser. Additional admissions requirements include (1) a grade of A in

BIOC 691 Special Topics in Biochemistry (section 904: Critical Scientific Thinking), (2) a grade of A in BIOC 505 Experimental Biochemistry (laboratory rotation), (3) a final score in the top 50 percent of scores in BIOC 503 and BIOC 504 Biochemistry, Cell and Molecular Biology and (4) minimum GRE scores of 158 (verbal), 158 (quantitative) and 4.0 analytical.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Ph.D. program in biochemistry prepares students for research-oriented careers as independent scientists in academia, government and biotechnology. The core of this degree program is an original independent research project under the supervision of a faculty adviser. The Department of Biochemistry and Molecular Biology has research efforts of international stature in several areas, including cellular and molecular signaling, tumor biology, structural biology, eukaryotic molecular biology, lipid and membrane biochemistry and molecular genetics, using state-of-the-art approaches in enzymology, genomics, proteomics and lipidomics.

While emphasizing independent research in biochemistry and molecular biology and training in the responsible conduct of research, the program also provides a background of courses designed to match the needs and interests of each student. The program is designed to provide students with the skills required to advance to positions as bioscience researchers/trainers in a broad spectrum of positions. The program provides a framework for the progressive development of a mastery of the current state of the subject matter of biochemistry, cell and molecular biology, an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation in bioscience.

The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified. In addition, the program will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.

Student learning outcomes

- Oral communication skills: The candidate will demonstrate the achievement
 of an appropriate level of oral communication skills with respect to the
 content, organization, logical flow, presentation and appropriate use of
 language incorporating the use of visual aids.
- Written communication skills: The candidate will demonstrate the
 achievement of an appropriate level of written communication skill with
 respect to grammar, syntax, spelling and use of vocabulary to effectively
 present information including the use of figures, tables and citations.
- Experimental design: The candidate will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments.

- 4. Problem-solving skills: The candidate will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems.
- 5. General knowledge of science: The candidate will demonstrate an appropriate level of knowledge of the current elements of the biosciences as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students must complete a minimum of 41 graduate credit hours.

Ph.D. students are expected to enroll as full-time graduate students. During the first year, students pursue research rotations, take formal course work and become familiar with current research topics through seminars, discussion groups and lectures by distinguished scientists. By the end of the first year, students choose a faculty adviser and begin dissertation research. Following completion of the research project and defense of the doctoral dissertation, graduates are equipped to participate in virtually any area of current biomedical research in the most prestigious laboratories.

Training in the responsible conduct of research

All Ph.D. students are required to complete the following training in the responsible conduct of research:

- OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research
- 2. Collaborative Investigator Training Initiative: an online course that provides training in human subjects research. The course must be completed during the fall semester of year two. Students must submit the certificate of completion before starting the spring semester of year two. Consult the following link to access the course: research.vcu.edu/human_research/citi_requirements.htm
- 3. Animal research training: Students are required to complete an online training course for the conduct of animal subjects research. The training must be completed during the fall semester of year two. Students must submit the certificate of completion before starting the spring semester of year two. Sign in using the following link, which provides access and guidance to the course: https://www.vcu.edu/research/acup/index.htm

Curriculum requirements

Courses	Credit hours
Required courses	14.5
BIOC 690.901 Biochemistry Seminar (one credit taken twice)	2
BIOC 690.902 Biochemistry Seminar (one credit taken twice)	2
BIOC 691 Special Topics or IBMS 630 Critical Thinking	1
BIOC 691.901 Special Topics (one credit taken twice)	2
IBMS 600 Laboratory Safety	1
IBMS 610 Laboratory Opportunities	0.5
IBMS 620 Laboratory/Clinical Rotations (two credits taken	4
twice)	
IBMS 680 Proposal Preparation	1
OVPR 601 Scientific Integrity, OVPR 602 Responsible	1
Scientific Conduct or OVPR 603 Responsible Conduct of	
Research	
Electives*	variable
Students enroll for a minimum of two elective courses drawn	
from the list of recommended electives below.	
Directed research*	variable
BIOC 697 Directed Research in Biochemistry	

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Total graduate credit hours required (minimum)

*Students register for a combination of directed research and elective credit hours to amass a minimum of 41 total credit hours.

Recommended electives

Students select courses from this list, with guidance from their advisers and committees. Ph.D. students must enroll full-time (minimum nine credits) to be eligible for a stipend. Some graduate courses listed above may be taken after the comprehensive examination. Most of this course work should be taken during the first two years of the program. Students are encouraged to take additional courses that relate to their personal research projects.

ANAT 615 Techniques in Neuroscience and Cell Biology	3
BIOC/MICR 503 Biochemistry, Cellular and Molecular Biology	1-5
BIOC/MICR 504 Biochemistry, Cellular and Molecular Biology	1-5
BIOC 601 Membranes and Lipids	3
BIOC 602 Physical Properties of Macromolecules	1-4
BIOC 604 Enzymology	1-3
BIOC 605 Molecular Biology	3
HGEN 501/BIOL 530 Human Genetics	3
IBMS 635 Cellular Signaling	3
MICR 505 Immunobiology	3
MICR 605 Prokaryotic Molecular Genetics	3
MICR 607 Techniques in Molecular Biology and Genetics	2
MICR/BNFO 653 Advanced Molecular Genetics:	3
Bioinformatics	
PHTX 691.803 Special Topics in Pharmacology	1-4

Typical plan of study

Many students often take more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a student or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors and advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on doctoral programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.

Biochemistry, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Graduate program director

Gail E. Christie, Ph.D.

Professor, Department of Microbiology and Immunology christie@vcu.edu (804) 828-9093

Program website: vcu.edu/mbg

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Biochemistry, Doctor of Philosophy (Ph.D.)

Biochemistry, Master of Science (M.S.)

Biochemistry, Master of Science (M.S.) with a concentration in molecular biology and genetics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Biochemistry, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics				
Degree:	Semester(s)	Deadline	Test	
	of entry:	dates:	requirements:	
Ph.D.	Fall	Applications received GRE, MCAT or DAT prior to Jan 15 given priority consideration		

Special requirements: MCAT or DAT acceptable in lieu of GRE for combined professional/academic degree programs

Applications for the program must be submitted to the Biomedical Sciences Doctoral Portal – School of Medicine – Ph.D. selected from the drop-down menu of programs on the VCU online application form.

In addition to the general admission requirements of the VCU Graduate School, successful applicants will typically have the following credentials:

- A baccalaureate degree or its equivalent at the time of enrollment, with an undergraduate GPA of 3.5
- Current GRE scores (taken within the past five years), with scores at the 75th percentile or greater preferred
- TOEFL scores of 600 (pBT), 250 (cBT) or 100 (iBT) for individuals for whom English is a second language; or 6.5 on the IELTS (To report GRE or TOEFL score, use VCU Code 5570.)
- 4. A personal statement that includes: long-term career goals to assess reasons behind the application; how a Ph.D. in biomedical science helps achieve those goals; the factors motivating a career in research; research experience, including dates, places and duration
- 5. Three letters of recommendation that speak to the scientific competency and experience of the applicant
- The equivalent of two semesters of general chemistry, two semesters of organic chemistry and two semesters of upper-level biology courses (e.g. cell biology, molecular biology, biochemistry, genetics, neuroscience, physiology, biophysics, etc.)
- 7. Laboratory experience strongly recommended

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

> General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The molecular biology and genetics curriculum is an integrated interdisciplinary program of study that builds on the graduate programs of participating departments in the School of Medicine. The doctoral curriculum is designed to be an intensive course of study that will provide students with the skills required to advance to research-oriented careers in biotechnology.

- The curriculum includes core, specialization and elective courses. Electives drawn from various departments allow individual specialization.
- The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience, an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation. The program relates this framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified.
- In addition, the program will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.
- The final three semesters include a research project conducted under the guidance of a selected faculty mentor and culminates in the presentation and defense of a master's thesis.

Participating faculty are associated not only with programs and departments within the School of Medicine, but also with the VCU Massey Cancer Center, the Philips Institute for Oral and Craniofacial Molecular Biology (School of Dentistry), the Institute of Structural Biology and Drug Discovery (School of Pharmacy) and the VCU Center for the Study of Biological Complexity (VCU Life Sciences).

The interdisciplinary approach to the solution of biological problems provided by this training is designed to develop in students the flexibility and problem-solving skills necessary for success in a variety of scientific career opportunities or further graduate study.

Student learning outcomes

- Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- General knowledge of sciences: Degree candidates will demonstrate an appropriate level of knowledge of the current elements of the biosciences as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the

- research literature and the ability to evaluate and critique publications, as measured by rubric.
- Communication skills: Degree candidates will demonstrate that an appropriate level of oral, written and visual communication skills have been acquired.
 - Oral communication skills: Degree candidates will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric.
 - Written communication skills: Degree candidates will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.
- 3. Experimental design: Degree candidates will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students must complete a minimum of 41 graduate credit hours.

During the first year, students pursue research rotations, take formal course work and become familiar with current research topics through seminars, discussion groups and lectures by distinguished scientists. By the end of the first year, students choose a faculty adviser and begin dissertation research. Prior to the beginning of the third year of study, students should successfully pass written and oral candidacy examinations. Following completion of the research project and defense of the doctoral dissertation, graduates are equipped to participate in a broad range of current biomedical research areas.

Curriculum requirements

Courses	Credit hours
Required courses	variable
BIOC 503-504 Biochemistry, Cell and Molecular Biology	10
BIOC 602 Physical Properties of Macromolecules (modules 1 and 2)	2
IBMS 600 Laboratory Safety	1
IBMS 610 Laboratory Opportunities	0.5
IBMS 620 Laboratory/Clinical Rotations (two credits taken for three rotations)	6
IBMS 630 Critical Thinking (or BIOC 691 Special Topics in Biochemistry or HGEN 691Special Topics in Genetics or equivalents)	1
IBMS 680 Proposal Preparation	1
IBMS 690 Basic Health Sciences Research Seminar (first year only)	1
MICR 605 Prokaryotic Molecular Genetics	3
MICR 607 Techniques in Molecular Biology and Genetics	2
MICR 690 Microbiology Research Seminar (section 002, MBG; one-credit course to be taken every semester beginning in the second year)	variable
MICR 693 Topics in Molecular Biology and Genetics (MBG journal club, must take at least twice)	2
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	1
A course in eukaryotic molecular biology drawn from the following approved list (or an approved alternative):	3
BIOC 605 Molecular Biology	3
HGEN 602 Genetic Models of Disease	3
HGEN 614 Pathogenesis of Human Genetic Disease	3
IBMS 635 Cellular Signaling	3

MICR 684 Molecular Biology of Cancer	3
PATH 670 Experimental Approaches to Tumor Biology	3

Directed research and elective courses

variable

Students will register for a variable number of credit hours of BIOC 697 Directed Research in Biochemistry and other elective courses to amass the required minimum of at least 41 credit hours.

variable

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Total graduate credit hours required (minimum)

Typical plan of study

Many students often take more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a student or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors and advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on doctoral programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.

Biochemistry, Master of Science (M.S.)

Graduate program director

Tomasz K. Kordula, Ph.D.

 $Associate\ professor,\ Department\ of\ Biochemistry\ and\ Molecular\ Biology\ tkordula@vcu.edu$

(804) 828-0771

Program website: biochemistry.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Biochemistry, Doctor of Philosophy (Ph.D.)

Biochemistry, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Biochemistry, Master of Science (M.S.) with a concentration in molecular biology and genetics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Biochemistry, Master of Science (M.S.)				
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:	
M.S.	Fall preferred	Applications accepted through June; priority given to early applicants	GRE, MCAT or DAT	
	ements: MCAT or DAT a ademic degree programs.	cceptable in lieu of GRE 1	or combined	

Applicants to the Master of Science in Biochemistry program must meet all general admission requirements of the VCU Graduate School. In addition, applicants must meet the following requirements.

- 1. Organic chemistry (with a minimum grade of B)
- 2. Undergraduate biochemistry (not required but recommended)
- 3. Laboratory experience
- 4. GRE scores of at least 158 (verbal), 158 (quantitative) and 4.0 analytical

Continuing for the Ph.D.

Students who plan to eventually work toward the Ph.D. degree in biochemistry at VCU should apply directly to our Ph.D. program and forego the master's degree. Applicants who are unsure if they want to earn a Ph.D. and who wish to gain experience in biomedical research before making this decision will be well served by our M.S. program. Outstanding performance in our master's program can help students gain admittance to a doctoral program at VCU or elsewhere. Master's students wishing to gain admission to the Ph.D. program should submit the following documents to the graduate program director: (1) a letter making this request which should include justification for the request, career goals, name of proposed Ph.D. adviser and brief description of proposed Ph.D. research project, (2) VCU graduate transcript and (3) a letter of support from proposed Ph.D. adviser. Additional admissions requirements include (1) a grade of A in BIOC 691.904 Critical Scientific Thinking, (2) a grade of A in BIOC 505 Experimental Biochemistry (laboratory rotation), (3) a final score in the top 50 percent of scores in BIOC 503-504 Biochemistry, Cell, and Molecular Biology and (4) GRE scores of at least 158 (verbal), 158 (quantitative) and 4.0 analytical.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The M.S. program in biochemistry prepares students for research-oriented careers in academia, government and biotechnology. The core of this degree program is an original independent research project under the supervision of a faculty adviser. The Department of Biochemistry and Molecular Biology has research efforts of international stature in several areas, including cellular and molecular signaling, tumor biology, structural biology, eukaryotic molecular biology, lipid and membrane biochemistry and molecular genetics, using state-of-the-art approaches in enzymology, genomics, proteomics and lipidomics.

While emphasizing independent research in biochemistry and molecular biology and training in the responsible conduct of research, the program also provides a background of courses designed to match the needs and interests of each student. The program is designed to provide students with the skills required to advance to positions as bioscience researchers/trainers in a broad spectrum of positions. The program provides a framework for the progressive development of a mastery of the current state of the subject matter of biochemistry, cell and molecular biology, as well as an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation in bioscience.

The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified. In addition, the program will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.

Student learning outcomes

- Experimental design: Degree candidates will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments.
- Oral communication skills: Degree candidates will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids.
- 3. Written communication skills: Degree candidates will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations.
- 4. General knowledge of science: Degree candidates will demonstrate an appropriate level of knowledge of the current elements of the biosciences as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications.
- 5. Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students in the M.S. in Biochemistry program must complete a minimum of 30 credit hours, including at least 24 didactic credits hours (exclusive of research credit hours).

Students in the M.S. program in biochemistry take courses designed for graduate students with an emphasis on research design and experimentation. During the first year of study, students pursue research rotations, take formal course work and become familiar with current research topics through seminars, discussion groups and lectures by distinguished scientists. By the end of the first year, students choose a faculty adviser and begin thesis research. Following completion of the research project and defense of the master's thesis, graduates are equipped to participate in virtually any area of current biomedical research in the most prestigious laboratories. For more detailed information on the program, visit biochemistry.vcu.edu/education/masters/default.htm.

M.S. students register for BIOC 690 and BIOC 691 for the duration of their tenure in the program. The core set of courses may be supplemented with elective

courses offered by the Department of Biochemistry and Molecular Biology or other departments. Students are encouraged to take additional courses that relate to their personal projects. Electives may include courses in techniques in molecular biology and genetics, bioinformatics, statistics, immunology, microbiology, molecular genetics, mammalian physiology and advanced organic and physical chemistry, among others.

Training in the responsible conduct of research

All M.S. students are required to complete the following training in the responsible conduct of research:

- OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research
- 2. Collaborative Investigator Training Initiative: an online course that provides training in human subjects research. The course must be completed during the fall semester of year two. Students must submit the certificate of completion before starting the spring semester of year two. Consult the following link to access the course: research.vcu.edu/human_research/citi_requirements.htm
- 3. Animal research training: Students are required to complete an online training course for the conduct of animal subjects research. The training must be completed during the fall semester of year two. Students must submit the certificate of completion before starting the spring semester of year two. Sign in using the following link, which provides access and guidance to the course: https://www.vcu.edu/research/acup/index.htm

Curriculum requirements

Courses	Credit hour
Required course work	24
Students must take a minimum of 24 didactic credit hours from the following list of courses.	
BIOC/MICR 503 Biochemistry, Cell and Molecular Biology	5
BIOC/MICR 504 Biochemistry, Cell and Molecular Biology	5
BIOC 505 Experimental biochemistry (research rotation, typically taken in year one)	2
BIOC 602 Physical Properties of Macromolecules and BIOC 604 Enzymology (Students will select modules from BIOC 602, typically year one, and BIOC 604, typically year two, to complete a total of four credit hours, at least one credit hour from each course.)	4
BIOC 690 Biochemistry Seminar (one-credit course in which students must register for the duration of their tenure in the program for a minimum of four credit hours)	4
BIOC 691.901 Special Topics in Biochemistry: Student seminar (one- to four-credit course in which students must register for the duration of their tenure in the program for a minimum of four credit hours)	4
BIOC 691.904 Special Topics in Biochemistry: critical scientific thinking or IBMS 630 Critical Thinking (typically year one)	1-2
IBMS 600 Laboratory Safety	1
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	1

Directed research BIOC 697 Directed Research in Biochemistry (1-15 variable credit hours; students will register for variable credit hours of BIOC 697 for the duration of the program for a minimum of six credit hours)	6 (minimum) variable
Electives (suggested but not required)	(2)
ANAT 615 Techniques in Neuroscience and Cell Biology	3
BIOC 601 Membranes and Lipids	3
HGEN 501/BIOL 530 Human Genetics	3
MICR 505 Immunobiology	3
MICR 605 Prokaryotic Molecular Genetics	3

MICR 653/BNFO 653 Advanced Molecular Genetics: 3
Bioinformatics

PHTX 691 Special Topics in Pharmacology: research design analysis

Total graduate credit hours required (minimum) 30

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Biochemistry, Master of Science (M.S.) with a concentration in molecular biology and genetics

Graduate program director

Gail E. Christie, Ph.D.

Professor, Department of Microbiology and Immunology christie@vcu.edu (804) 828-9093

Program website: vcu.edu/mbg

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Biochemistry, Doctor of Philosophy (Ph.D.) Biochemistry, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Biochemistry, Master of Science (M.S.) with a concentration in molecular biology and genetics			
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE. TOEFL for
	Fall	Deadline date rolling, preference given to applications received by Jan 17	native language is not
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Special requirements

Applications for the program should be submitted to Molecular Biology and Genetics – M.S. selected from the drop-down menu of programs of the VCU online graduate application form. The degree awarded will be a Master of Science in Biochemistry.

In addition to the general admission requirements of the VCU Graduate School, applicants must have earned or expect to earn a baccalaureate or equivalent degree, and must have demonstrated a superior knowledge of biology, chemistry, physics and mathematics. Laboratory experience is also strongly recommended. The Graduate Record Examination is required, as are letters of recommendation and a letter summarizing the applicant's goals. International applicants who do not use English as their native language must take the Test of English as a Foreign Language examination.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The molecular biology and genetics curriculum is an integrated interdisciplinary program of study that builds on the graduate programs of participating departments in the School of Medicine. The master's curriculum is designed to be an intensive course of study that will provide students with the skills required to advance to research-oriented careers in biotechnology or provide the foundation for further graduate study toward a Ph.D.

It is expected that the program should be completed in approximately two to twoand-one-half years.

- The curriculum includes core, specialization and elective courses. Electives drawn from various departments allow individual specialization.
- 2. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience, an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation. The program relates this framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified.

- In addition, the program will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.
- The final three semesters include a research project conducted under the guidance of a selected faculty mentor and culminates in the presentation and defense of a master's thesis.

Participating faculty are associated not only with programs and departments within the School of Medicine, but also with the VCU Massey Cancer Center, the Philips Institute for Oral and Craniofacial Molecular Biology (School of Dentistry), the Institute of Structural Biology and Drug Discovery (School of Pharmacy) and the VCU Center for the Study of Biological Complexity (VCU Life Sciences).

The interdisciplinary approach to the solution of biological problems provided by this training is designed to develop in students the flexibility and problem-solving skills necessary for success in a variety of scientific career opportunities or further graduate study.

Student learning outcomes

- Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 2. General knowledge of sciences: Degree candidates will demonstrate an appropriate level of knowledge of the current elements of the biosciences as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications, as measured by rubric.
- Communication skills: Degree candidates will demonstrate that an appropriate level of oral, written and visual communication skills have been acquired.
 - a. Oral communication skills: Degree candidates will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric.
 - b. Written communication skills: Degree candidates will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.
- Experimental design: Degree candidates will demonstrate the achievement of
 an appropriate level of competence in the ability to appraise, modify and/or
 create, and implement experimental protocols and to design and develop
 experiments as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, the interdisciplinary master's curriculum in molecular biology and genetics requires a minimum of 48 credit hours, at least half of which must be course work restricted to graduate students. The curriculum includes 19 credit hours of required core course work and 29 additional credit hours of required course work, directed research and research seminar course work, and additional approved course work, as listed below. M.S. candidates must pass a final oral examination. A written thesis approved by the student's graduate advisory committee completes the requirements leading to the M.S. degree.

Curriculum requirements

Социясов	Credi	
Courses	hours	
Required core courses	19	

BIOC 530 Biochemistry, Cell and Molecular Biology Module 1: Protein Structure and Function*	2
BIOC 531 Biochemistry, Cell and Molecular Biology Module 2: Basic Metabolism*	1
BIOC 532 Biochemistry, Cell and Molecular Biology Module 3: Central Dogma of Molecular Biology*	1
BIOC 533 Biochemistry, Cell and Molecular Biology Module 4: Lipids/	1
Membranes and Bioenergetics*	
IBMS 600 Laboratory Safety	1
IBMS 620 Laboratory/Clinical Rotations; sections 004 and 005** (two-credit course taken twice)	4
MICR/BIOC 504 Biochemistry, Cell and Molecular Biology	5
MICR 607 Techniques in Molecular Biology and Genetics	2
MICR 693 Topics in Molecular Biology and Genetics (MBG journal	1
club, must take at least once)	
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	1

Other required course work

29

BIOC 697 Directed Research in Biochemistry or MICR 697 Directed variable Research in Microbiology (Note: Students must take a minimum of one credit hour of directed research every semester of enrollment in the program after the first year of study.)

MICR 690 Microbiology Research Seminar (section 002, MBG; one-credit course) (Note: Students must take a minimum of one credit hour of research seminar course work every fall and spring semester of enrollment in the program.)

Any appropriate graduate-level course offered by the School of Medicine 3 or with the course designations of BIOL, BNFO, CHEB, CHEM, CLSE, EGRB, EPID, MEDC

Students may take additional course work with the approval of their graduate program directors.

Total graduate credit hours required (minimum) 48

- * This requirement may also be satisfied with BIOC 503 Biochemistry, Cell and Molecular Biology (five credit hours).
- ** This requirement may also be satisfied, under certain circumstances, with MICR 608 or MICR 609 Introduction to Microbiology and Immunology Research (three credit hours; section 002). Consult with the program director.

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

M.S. students in the MBG curriculum must prepare a formal written research plan and make an oral presentation of their thesis research proposals and progress reports to their graduate advisory committees prior to the beginning of the second year of residency. The student's knowledge in the area of the proposed research, current research accomplishments and the feasibility of the proposed research project will be evaluated by the GAC. Successful completion of this review is required for continuance in the program and constitutes admission to candidacy.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Biostatistics, Doctor of Philosophy (Ph.D.)

Graduate program director

Roy T. Sabo, Ph.D. Associate professor, Department of Biostatistics rsabo@vcu.edu (804) 828-3047

Additional contact

Russell M. Boyle

Associate director, graduate programs in biostatistics

boyle@vcu.edu

(804) 827-2049

Program website: biostatistics.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Biostatistics, Doctor of Philosophy (Ph.D.) with a concentration in genomic biostatistics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Biostatistics, Doctor of Philosophy (Ph.D.)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall preferred	Applications received	GRE
		prior to Jan 15 given	
		priority consideration	

In addition to the general admission requirements of the VCU Graduate School, applicants must complete the verbal, quantitative and analytical writing sections of the Graduate Record Exam. The following mathematics courses or their equivalents are required for admission: MATH 307 Multivariate Calculus, MATH 309 Introduction to Probability Theory, MATH 310 Linear Algebra and STAT 212 Concepts in Statistics. MATH 507 Measure and Integration Theory and MATH 508 Analysis II are recommended for students interested in completing the Ph.D. program.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The mission of the VCU Department of Biostatistics is to improve human health through methodological research, the education of graduate students and health science researchers in biostatistical methods and applications, and collaborative health sciences research. Faculty members conduct methodological research motivated by collaborative alliances, which in turn contributes to and enhances the department's educational mission. By focusing on the integration of methodological and collaborative research, students develop strong biostatistical and communication skills, enabling them to assume leadership positions in academia, government and industry.

The program is designed to provide students with the skills required to advance to positions as bioscience researchers/trainers in a broad spectrum of positions. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience and an ability to synthesize this information and apply this foundation to the identification of key areas of investigation/experimentation in bioscience. The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified. In addition, students will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.

Student learning outcomes

- Experimental design: The candidate will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments as measured by rubric.
- 2. Integrated knowledge of mathematics and bioscience: The candidate will demonstrate an appropriate level of knowledge of the current elements of mathematics as related to bioscience and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications as measured by rubric.
- Oral communication skills: The candidate will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric.
- 4. Problem-solving skills: The candidate will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 5. Written communication skills: The candidate will demonstrate the achievement of an appropriate level of written communication skill with

respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, Ph.D. students must complete a minimum total of 78 credit hours (59 didactic hours, plus eight hours each of seminar and consulting, and at least three credit hours of research). More specifically, required courses include BIOS/STAT 513 and 514, BIOS 524, BIOS 546, BIOS 553, BIOS 554, BIOS 571, BIOS 572, BIOS 615 and 616, BIOS 625, BIOS 631, BIOS 647, and OVPR 601, 602 or 603. In addition, students must take two 600-level BIOS/STAT courses from the list provided; two additional 600-level BIOS, STAT or MATH courses or BIOS 567 or STAT; and one graduate-level non-BIOS, STAT or MATH course. Ph.D. students must also take eight semesters of BIOS 516 Biostatistical Consulting and BIOS 690 Biostatistical Research Seminar. In addition, Ph.D. students will participate in the summer student research program at least twice and present at the Biostatistics Student Research Symposium each fall.

Qualifying exam

Students pursuing the Ph.D. must pass a qualifying examination administered at the end of May or the beginning of June after completion of the first year of course work. The examination is an in-class, closed-book exam given over a period of two days and covers material from the following first-year courses:

Part A: Applied covers BIOS 553, 554, 571 and 572.

Part B: Theoretical covers BIOS/STAT 513, BIOS/STAT 514 and BIOS 546.

Each part of the exam is graded as pass/fail. A student who fails Part A or Part B of the exam at the Ph.D. level must retake that part of the qualifying exam. Such a student may petition the examination committee of the Department of Biostatistics for a winter administration of the qualifying exam.

Comprehensive exam

Students pursuing the Ph.D. degree who have passed the qualifying exam must pass a comprehensive exam consisting of two parts.

Part A: Written comprehensive exam

This comprehensive exam is an in-class, closed-book exam administered in June after completion of the advanced years' course work (usually at the end of the third year for full-time students). The exam covers the following material: BIOS 615 and BIOS 616 Advanced Inference, BIOS 625 Categorical Data Analysis and Generalized Linear Models, BIOS 631 Multivariate Analysis I and BIOS 647 Survival Analysis.

Part B: Oral examination: data/analytic/consulting

This exam tests for problem-solving abilities and draws from material presented in BIOS 516 and advanced required and elective courses. Students have two weeks to complete a statistical analysis of a data set and submit a written report describing the analysis. Students will present an oral report defending the analysis a week later. The exam will be written and evaluated by the Ph.D. student's dissertation committee.

The data/analytic/consulting oral exam may not be taken until the student has passed the written comprehensive exam.

Dissertation

A comprehensive dissertation reporting the results of original research is required for the Ph.D. degree.

Final examination

All Ph.D. candidates must defend their dissertations at a final oral examination. A public presentation will precede a Ph.D. defense closed to all but the student's committee. Questions are restricted to the topic of the dissertation for the Ph.D. candidate.

Curriculum requirements

Courses	Credit hour
Required core courses	44
BIOS/STAT 513 Mathematical Statistics I	3

BIOS/STAT 514 Mathematical Statistics II	3
BIOS 524 Biostatistical Computing	3
BIOS 546 Theory of Linear Models	3
BIOS 553 Linear Regression	3
BIOS 554 Analysis of Variance	3
BIOS 571 Clinical Trials	3
BIOS 572 Statistical Analysis of Biomedical Data	3
BIOS 615 Advanced Inference	4
BIOS 616 Advanced Inference	4
BIOS 625 Categorical Data Analysis and Generalized Linear Models	4
BIOS 631 Multivariate Analysis I	4
BIOS 647 Survival Analysis	3
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific	1
Conduct or OVPR 603 Responsible Conduct of Research	
Four of the courses listed below (at least two must be BIOS courses; at least two must be at the 600-level) or others selected with approval of program director	12
BIOS 567 Statistical Methods for High-throughput Genomic Data I	3
BIOS 632 Multivariate Analysis II	3
BIOS 638 Statistical Design and Analysis in Toxicology	3
BIOS 639 Statistical Design and Analysis in Toxicology	3
BIOS 667 Statistical Learning and Data Mining	3
BIOS 671 Nonlinear Models	3
BIOS 668 Statistical Methods for High-throughput Genomic Data II	3
BIOS 688 Applied Bayesian Biostatistics	3
BIOS 691 Special Topics in Biostatistics	3
MATH 603 Advanced Probability Theory	3
MATH 640 Mathematical Biology I	3
STAT 503 Introduction to Stochastic Processes	3
STAT 613 Stochastic Processes	3
STAT 614 Stochastic Processes	3
STAT/OPER 636 Machine Learning Algorithms	3
STAT 642 Design and Analysis of Experiments I	3
STAT 645 Bayesian Decision Theory	3
STAT 675 Time Series Analysis I	3
One additional course (non-BIOS, non-STAT or non-MATH) with approval or program director	3
Suggested courses include any three-credit 600-level course in epidemiology and community health (EPID), social and behavioral health (SBHD), health care policy and research	
(HCPR) or bioinformatics (BNFO)	
Consulting and seminar courses	16
BIOS 516 Biostatistical Consulting (one-credit course taken eight semesters)	8
BIOS 690 Biostatistical Research Seminar (one-credit course taken eight semesters)	8
Dissertation research	3 (minimu
BIOS 697 Directed Research in Biostatistics (minimum of three	variable

Dissertation research 3 (minimum) BIOS 697 Directed Research in Biostatistics (minimum of three credit hours) variable

78

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's

academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on doctoral programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.

Biostatistics, Doctor of Philosophy (Ph.D.) with a concentration in genomic biostatistics

Graduate program director

Roy T. Sabo, Ph.D.

Associate professor, Department of Biostatistics

rsabo@vcu.edu

(804) 828-3047

Additional contact

Russell M. Boyle

Associate director, graduate programs in biostatistics

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(804) 827-2049

Program website: biostatistics.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Biostatistics, Doctor of Philosophy (Ph.D.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Biostatistics, Doctor of Philosophy (Ph.D.) with a concentration in genomic biostatistics			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Ph.D.	Fall preferred	Applications received prior to Jan 15 given priority consideration	

In addition to the general admission requirements of the VCU Graduate School, applicants must complete the verbal, quantitative and analytical writing sections of the Graduate Record Exam. The following mathematics courses or their equivalents are required for admission: MATH 307 Multivariate Calculus, MATH 309 Introduction to Probability Theory, MATH 310 Linear Algebra and STAT 212 Concepts in Statistics. MATH 507 Measure and Integration Theory and MATH

508 Analysis II are recommended for students interested in completing the Ph.D. program.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The mission of the VCU Department of Biostatistics is to improve human health through methodological research, the education of graduate students and health science researchers in biostatistical methods and applications, and collaborative health sciences research. Faculty members conduct methodological research motivated by collaborative alliances, which in turn contributes to and enhances the department's educational mission. By focusing on the integration of methodological and collaborative research, students develop strong biostatistical and communication skills, enabling them to assume leadership positions in academia, government and industry.

The program is designed to provide students with the skills required to advance to positions as bioscience researchers/trainers in a broad spectrum of positions. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience and an ability to synthesize this information and apply this foundation to the identification of key areas of investigation/experimentation in bioscience. The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified. In addition, students will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.

Student learning outcomes

- Experimental design: The candidate will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments as measured by rubric.
- Integrated knowledge of mathematics and bioscience: The candidate will
 demonstrate an appropriate level of knowledge of the current elements of
 mathematics as related to bioscience and a more detailed understanding of the
 individual area of scholarship, including an appropriate familiarity with the
 research literature and the ability to evaluate and critique publications as
 measured by rubric.
- Oral communication skills: The candidate will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric.
- 4. Problem-solving skills: The candidate will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.

5. Written communication skills: The candidate will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, Ph.D. students in the genomic biostatistics concentration will complete a minimum of 77 graduate credit hours (58 didactic plus eight hours each of consulting and seminar, and at least three credit hours of research). More specifically, required courses include BIOS 513, 514, 524, 546, 553, 554, 567, 571, 572, 615, 616, 625, 632, 647, 668, BIOL 540 (or other relevant course), and OVPR 601, 602 or 603. In addition, students will take one of BIOS 667, BIOS 691 (where the topic is genetic epidemiology or systems biology) or one other 600-level BIOS/STAT/MATH/BNFO course. Ph.D. students must also take eight semesters of BIOS 516 Biostatistical Consulting and BIOS 690 Biostatistical Research Seminar. In addition, Ph.D. students will participate in the summer student research program at least twice and present at the Biostatistics Student Research Symposium each fall.

Qualifying exam

Students pursuing the Ph.D. must pass a qualifying examination administered at the end of May or the beginning of June after completion of the first year of course work. The examination is an in-class, closed-book exam given over a period of two days and covers material from the following first-year courses:

Part A: Applied covers BIOS 553, 554, 571 and 572.

Part B: Theoretical covers BIOS 513, 514 and 546.

Each part of the exam is graded as pass/fail. A student who fails Part A or Part B of the exam at the Ph.D. level must retake that part of the qualifying exam. Such a student may petition the examination committee of the Department of Biostatistics for a winter administration of the qualifying exam.

Comprehensive exam

Students pursuing the Ph.D. degree who have passed the qualifying exam must pass a comprehensive exam consisting of two parts.

Part A: Written comprehensive exam

This comprehensive exam is an in-class, closed-book exam administered in June after completion of the advanced years' course work (usually at the end of the third year for full-time students). The exam covers the following material: BIOS 615 and BIOS 616 Advanced Inference, BIOS 625 Categorical Data Analysis and Generalized Linear Models, BIOS 632 Multivariate Analysis II and BIOS 647 Survival Analysis.

Part B: Oral examination: data/analytic/consulting

This exam tests for problem-solving abilities. It is expected that the oral exam will pertain to gene, protein or microRNA expression, as well as metabolite, methylation, genetic or other data arising from molecular assays. Students have two weeks to complete a statistical analysis of a data set and submit a written report describing the analysis. Students will present an oral report defending the analysis a week later. The exam will be written and evaluated by the Ph.D. student's dissertation committee.

The oral examination may not be taken until the student has passed the written comprehensive exam.

Dissertation

A comprehensive dissertation reporting the results of original research related to genomics topics is required for the Ph.D. with a concentration in genomic biostatistics. It is expected that the dissertation will make use of some high-throughput genomic technology as an application for the methodological development.

Final examination

All Ph.D. candidates must defend their dissertations at a final oral examination. A public presentation will precede a Ph.D. defense closed to all but the student's committee. Questions are restricted to the topic of the dissertation for the Ph.D. candidate.

Curriculum requirements

Curriculum requirements	
Courses	Credit hours
Required core courses	52
BIOL/BNFO 540 Fundamentals of Molecular Genetics (or other	3
relevant course)	2
BIOS/STAT 513 Mathematical Statistics I	3
BIOS/STAT 514 Mathematical Statistics II	3
BIOS 524 Biostatistical Computing	3
BIOS 546 Theory of Linear Models	3
BIOS 553 Linear Regression	3
BIOS 554 Analysis of Variance	3
BIOS 567 Statistical Methods for High-throughput Genomic Data	3
_	2
BIOS 571 Clinical Trials	3
BIOS 572 Statistical Analysis of Biomedical Data	3
BIOS 615 Advanced Inference	4
BIOS 616 Advanced Inference	4
BIOS 625 Categorical Data Analysis and Generalized Linear Models	4
BIOS 632 Multivariate Analysis II	3
BIOS 647 Survival Analysis II	3
BIOS 668 Statistical Methods for High-throughput Genomic Data	3
II	3
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific	1
Conduct or OVPR 603 Responsible Conduct of Research	1
Constitution of the constitution of the constitution	
One of the following BIOS/STAT courses below (or another	3
with approval of program director)	_
BIOS 667 Statistical Learning and Data Mining	3
BIOS 691 Special Topics in Biostatistics: Genetic Epidemiology	3
or Systems Biology	
One additional three-credit 600-level BIOS, STAT, MATH or	3
BNFO course from the following list (or another with	
approval of program director):	
BIOS 638 Statistical Design and Analysis in Toxicology	3
BIOS 639 Statistical Design and Analysis in Toxicology	3
BIOS 671 Nonlinear Models	3
BIOS 688 Applied Bayesian Biostatistics	3
BIOS 691 Special Topics in Biostatistics	3
BNFO/BIOL 601 Integrated Bioinformatics	3
BNFO 691 Special Topics in Bioinformatics	3
MATH 603 Advanced Probability Theory	3
MATH 640 Mathematical Biology I	3
STAT 503 Introduction to Stochastic Processes	3
STAT 613 Stochastic Processes	3
STAT 614 Stochastic Processes	3
STAT/OPER 636 Machine Learning Algorithms	3
STAT 642 Design and Analysis of Experiments I	3
STAT 645 Bayesian Decision Theory	3
STAT 675 Time Series Analysis	3
Consulting and seminar courses	16
BIOS 516 Biostatistical Consulting (one-credit course taken eight	8
semesters)	^
BIOS 690 Biostatistical Research Seminar (one-credit course	8
taken eight semesters)	
Dissertation research	3 (minimum)
Dissei tativii researcii	~ (mmmuni)

BIOS 697 Directed Research in Biostatistics (minimum of three

credit hours)

variable

Total graduate credit hours required (minimum)

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

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Graduation requirements

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Other information

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Biostatistics, Master of Science (M.S.)

Graduate program director

Roy T. Sabo, Ph.D. Associate professor, Department of Biostatistics rsabo@vcu.edu (804) 828-3047

Additional contact

Russell M. Boyle Associate director, graduate programs in biostatistics boyle@vcu.edu (804) 827-2049

Program website: biostatistics.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Biostatistics, Master of Science (M.S.) with a concentration in clinical research and biostatistics

Biostatistics, Master of Science (M.S.) with a concentration in genomic biostatistics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Biostatistics, Master of Science (M.S.)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
M.S.	Fall preferred	Applications received	Α
		prior to Jan 15 given priority consideration	

In addition to the general admission requirements of the VCU Graduate School, applicants for the M.S. in Biostatistics must complete the verbal, quantitative and analytical writing sections of the Graduate Record Exam.

Additionally, the following mathematics courses or their equivalents are required for admission: MATH 307 Multivariate Calculus, MATH 309 Introduction to Probability Theory, MATH 310 Linear Algebra and STAT 212 Concepts in Statistics. Although not required, prior course work in additional mathematics, statistics or computer science is helpful.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The mission of the VCU Department of Biostatistics is to improve human health through methodological research, the education of graduate students and health science researchers in biostatistical methods and applications, and collaborative health sciences research. Faculty members conduct methodological research motivated by collaborative alliances, which in turn contributes to and enhances the department's educational mission. By focusing on the integration of methodological and collaborative research, students develop strong biostatistical and communication skills, enabling them to assume leadership positions in academia, government and industry.

The program is designed to provide students with the skills required to advance to positions as bioscience researchers/trainers in a broad spectrum of positions. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience and an ability to synthesize this information and apply this foundation to the identification of key areas of investigation/experimentation in bioscience. The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified. In addition, students will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.

Student learning outcomes

 Experimental design: The candidate will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or

- create, and implement experimental protocols and to design and develop experiments as measured by rubric.
- Integrated knowledge of mathematics and bioscience: The candidate will
 demonstrate an appropriate level of knowledge of the current elements of
 mathematics as related to bioscience and a more detailed understanding of the
 individual area of scholarship, including an appropriate familiarity with the
 research literature and the ability to evaluate and critique publications as
 measured by rubric.
- 3. Oral communication skills: The candidate will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric.
- 4. Problem-solving skills: The candidate will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 5. Written communication skills: The candidate will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, M.S. students must complete a minimum total of 42 graduate credit hours of course work. Students are required to take BIOS/STAT 513 and 514, BIOS 524, BIOS 546, BIOS 553, BIOS 554, BIOS 571 and BIOS 572. In addition, each student is required to take one of BIOS 615, BIOS 616, BIOS 625, BIOS 631 or 647. Students are also required to take either BIOS 567 and one other 500- or 600-level BIOS or STAT course, or two other 500- or 600-level BIOS or STAT courses. Full-time master's students must take four credit hours each of BIOS 516 Biostatistical Consulting and BIOS 690 Biostatistical Research Seminar. In addition, students will participate in the summer student research program and present at the Biostatistics Student Research Symposium the summer and fall after the first year, which will require one credit hour of BIOS 697 Directed Research in Biostatistics.

Qualifying exam

Students pursuing the M.S. in Biostatistics must pass a qualifying examination administered at the end of May or the beginning of June after completion of the first year of course work. The examination is an in-class, closed-book exam given over a period of two days and covers material from the following first-year courses:

Part A: Applied covers BIOS 553, 554, 571 and 572.

Part B: Theoretical covers BIOS/STAT 513, BIOS/STAT 514 and BIOS 546.

Each part of the exam is graded as pass/fail. A student who does not pass Part A or Part B of the exam at the M.S. level must retake that part of the qualifying exam. Such a student may petition the examination committee of the Department of Biostatistics for a winter administration of the qualifying exam.

Thesis

M.S. in Biostatistics students must write a thesis that reports the results of data analysis, or a review or survey. An original research topic is not required.

Final examination

M.S. in Biostatistics candidates must defend their theses at a final oral examination. While questions are restricted to the topic of the dissertation for the Ph.D. candidate, no such restriction applies for the thesis defense for M.S. candidates.

Curriculum requirements

Courses	Credit hours	
Core courses	24	
BIOS/STAT 513 Mathematical Statistics I	3	
BIOS/STAT 514 Mathematical Statistics II	3	
BIOS 524 Biostatistical Computing	3	

BIOS 546 Theory of Linear Models	3
BIOS 553 Linear Regression	3
BIOS 554 Analysis of Variance	3
BIOS 571 Clinical Trials	3
BIOS 572 Statistical Analysis of Biomedical Data	3
One of the following:	3 (minimum)
BIOS 615 Advanced Inference	4
BIOS 616 Advanced Inference	4
BIOS 625 Categorical Data Analysis and Generalized Linear Models	4
BIOS 631 Multivariate Analysis I	4
BIOS 647 Survival Analysis	3
One of the following combinations:	6 (minimum)
BIOS 567 Statistical Methods for High-throughput Genomic Data I plus one of the courses in the list below	6
Or (with program director approval) two of:	
BIOS 632 Multivariate Analysis II	3
BIOS 638 Statistical Design and Analysis of Toxicology	3
BIOS 639 Statistical Design and Analysis of Toxicology	3
BIOS/STAT 650 Design and Analysis of Response Surface Experiments	3
BIOS 667 Statistical Learning and Data Mining	3
BIOS 688 Applied Bayesian Biostatistics	3
STAT 503 Introduction to Stochastic Processes	3
STAT 613 Stochastic Processes	3
STAT 614 Stochastic Processes	3
STAT 625 Applied Multivariate Analysis	3
Consulting and seminar	8 (minimum)
BIOS 516 Biostatistical Consulting (one-credit course taken four semesters)	4
BIOS 690 Biostatistical Research Seminar (one-credit course	4
taken four semesters)	
Summer student research program	1 (minimum)
BIOS 697 Directed Research in Biostatistics	1

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

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Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions

$\label{eq:Degree candidacy requirements} \textbf{Degree candidacy requirements}$



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Biostatistics, Master of Science (M.S.) with a concentration in clinical research and biostatistics

Graduate program director

Roy T. Sabo, Ph.D. Associate professor, Department of Biostatistics rsabo@vcu.edu (804) 828-3047

Additional contact

Russell M. Boyle

Associate director, graduate programs in biostatistics

boyle@vcu.edu (804) 827-2049

Program website: biostatistics.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Biostatistics, Master of Science (M.S.)

Biostatistics, Master of Science (M.S.) with a concentration in genomic biostatistics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Biostatistics, Master of Science (M.S.) with a concentration in clinical research and biostatistics			
Degree:	Semester(s)	Deadline dates:	Test requirements:
140	of entry:		. 1
M.S.	Fall preferred	Applications receive prior to Jan 15 given priority consideration	ı

In addition to the general admission requirements of the VCU Graduate School, students applying to the clinical research and biostatistics concentration must hold the M.D., D.D.S., Ph.D., D.P.H., D.O., Pharm.D. or an equivalent health professional terminal degree from an accredited college or university. Applicants with international M.D. degrees are considered on an individual basis. The applicant must have a minimum undergraduate GPA of 3.00. Applicants must also submit a letter detailing career goals and how the M.S. in Biostatistics with a concentration in clinical research and biostatistics applies to those goals, as well as at least three letters of recommendation.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The mission of the VCU Department of Biostatistics is to improve human health through methodological research, the education of graduate students and health science researchers in biostatistical methods and applications, and collaborative health sciences research. Faculty members conduct methodological research motivated by collaborative alliances, which in turn contributes to and enhances the department's educational mission. By focusing on the integration of methodological and collaborative research, students develop strong biostatistical and communication skills, enabling them to assume leadership positions in academia, government and industry.

The program is designed to provide students with the skills required to advance to positions as bioscience researchers/trainers in a broad spectrum of positions. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience and an ability to synthesize this information and apply this foundation to the identification of key areas of investigation/experimentation in bioscience. The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified. In addition, students will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.

Student learning outcomes

- Experimental design: The candidate will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments as measured by rubric.
- 2. Integrated knowledge of mathematics and bioscience: The candidate will demonstrate an appropriate level of knowledge of the current elements of mathematics as related to bioscience and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications as measured by rubric.
- Oral communication skills: The candidate will demonstrate the achievement
 of an appropriate level of oral communication skills with respect to the
 content, organization, logical flow, presentation and appropriate use of
 language incorporating the use of visual aids, as measured by rubric.
- 4. Problem-solving skills: The candidate will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 5. Written communication skills: The candidate will demonstrate the achievement of an appropriate level of written communication skill with

respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, M.S. in Biostatistics, clinical research and biostatistics concentration students must complete a minimum total of 34 graduate credit hours. This includes 17 credit hours of core course work, 12 credit hours of elective courses and at least five credit hours of directed independent research.

Students in the clinical research and biostatistics concentration must complete a research project, culminating in an academic manuscript submitted for publication. A research advisory committee must be formed to direct the student's research project. The research advisory committee must consist of two clinicians familiar with the student's area of research and a faculty member of the Department of Biostatistics. The student is be primarily responsible for the conceptualization, design, conduct, analysis and interpretation of the research project.

Final examination

Clinical research and biostatistics concentration students do not defend their research projects at a final oral examination.

Curriculum requirements

Curriculum requirements	
Courses	Credit hours
Core courses	17
BIOS 516 Biostatistical Consulting	1
BIOS 531 Clinical Epidemiology or EPID 571 Principles of Epidemiology	3
BIOS/STAT 543 Statistical Methods I	3
BIOS/STAT 544 Statistical Methods II	3
BIOS 571 Clinical Trials	3
BIOS 572 Statistical Analysis of Biomedical Data	3
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	1
Directed research	5 (minimum)
BIOS 697 Directed Research in Biostatistics	5

Research	
Directed research	5 (minimum
BIOS 697 Directed Research in Biostatistics	5
Electives (Choose from suggested electives below.)	12
Total graduate credit hours required (minimum)	34
Suggested electives	
Electives in biostatistics	
BIOS 524 Biostatistical Computing	3
BIOS 553 Linear Regression	3
BIOS 554 Analysis of Variance	3
BIOS 610 Research Processes and Methods for the Health Professions	3
BIOS 691 Special Topics: statistical issues in drug research and development	1-4
Electives in epidemiology and public health	
EPID 571 Principles of Epidemiology	3
EPID 600 Introduction to Public Health	3
EPID 601 Contemporary Issues and Controversies in Public	3

Electives in social and behavioral health

SBHD 605 Introduction to Social and Behavioral Health	3
SBHD 610 Behavioral Measurement	3
SBHD 632 Health Disparities and Social Justice	3
SBHD 633 Structural Equation Modeling	3

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

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Other information

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Graduate program director

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Associate professor, Department of Biostatistics rsabo@vcu.edu

(804) 828-3047

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Additional contact

Russell M. Boyle

Associate director, graduate programs in biostatistics

boyle@vcu.edu (804) 827-2049

Program website: biostatistics.vcu.edu

Health

EPID 603 Public Health Policy and Politics

EPID 606 Epidemiologic Methods

EPID 620 Cancer Epidemiology

EPID 607 Nutritional Epidemiology

EPID 648 Behavioral Epidemiology

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Biostatistics, Master of Science (M.S.)

Biostatistics, Master of Science (M.S.) with a concentration in clinical research and biostatistics

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Admission requirements

Biostatistics, Master of Science (M.S.) with a concentration in genomic biostatistics			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.S.	Fall preferred	Applications received	GRE
	•	prior to Jan 15 given	
		priority consideration	

In addition to the general admission requirements of the VCU Graduate School, applicants for the M.S. in Biostatistics must complete the verbal, quantitative and analytical writing sections of the Graduate Record Exam.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The mission of the VCU Department of Biostatistics is to improve human health through methodological research, the education of graduate students and health science researchers in biostatistical methods and applications, and collaborative health sciences research. Faculty members conduct methodological research motivated by collaborative alliances, which in turn contributes to and enhances the department's educational mission. By focusing on the integration of methodological and collaborative research, students develop strong biostatistical and communication skills, enabling them to assume leadership positions in academia, government and industry.

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Student learning outcomes

- Experimental design: The candidate will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments as measured by rubric.
- Integrated knowledge of mathematics and bioscience: The candidate will
 demonstrate an appropriate level of knowledge of the current elements of
 mathematics as related to bioscience and a more detailed understanding of the
 individual area of scholarship, including an appropriate familiarity with the
 research literature and the ability to evaluate and critique publications as
 measured by rubric.
- Oral communication skills: The candidate will demonstrate the achievement
 of an appropriate level of oral communication skills with respect to the
 content, organization, logical flow, presentation and appropriate use of
 language incorporating the use of visual aids, as measured by rubric.
- 4. Problem-solving skills: The candidate will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 5. Written communication skills: The candidate will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, M.S. students will complete a minimum total of 33 credit hours of course work. Required courses include BIOS/STAT 513 and 514, BIOS 524, BIOS 546, BIOS 553, BIOS 554, BIOS 571 and BIOS 572. In addition, each student is required to take BIOS 567 and BIOL/BNFO 540 (or equivalent) and one of BIOS 632, BIOS 667, BIOS 668 and BIOS 691 (the latter when the topic is systems biology or statistical genetics/genetic epidemiology).

Full-time master's students must take four semesters of BIOS 516 Biostatistical Consulting and BIOS 690 Biostatistical Research Seminar. In addition, students will participate once in the student summer teaching program and present at the Biostatistics Student Research Symposium in the fall.

Qualifying exam

Students pursuing the M.S. in Biostatistics with a concentration in genomic biostatistics must pass a qualifying examination administered at the end of May or the beginning of June after completion of the first year of course work. The examination is an in-class, closed-book exam given over a period of two days and covers material from the following first-year courses:

Part A: Applied covers BIOS 553, 554, 571 and 572.

Part B: Theoretical covers BIOS/STAT 513, BIOS/STAT 514 and BIOS 546.

Each part of the exam is graded as pass/fail. A student who does not pass Part A or Part B of the exam at the M.S. level must retake that part of the qualifying exam. Such a student may petition the examination committee of the Department of Biostatistics for a winter administration of the qualifying exam.

Thesis

M.S. in Biostatistics with a concentration in genomic biostatistics concentration students must write a thesis that reports the results of data analysis, or a review or survey. An original research topic is not required.

Final examination

M.S. candidates must defend their theses at a final oral examination. While questions are restricted to the topic of the dissertation for the Ph.D. candidate, no such restriction applies for the thesis defense for M.S. candidates.

Curriculum requirements

Courses Credit hours

Core courses 30

BIOL/BNFO 540 Fundamentals of Molecular Genetics (or other	3
relevant course)	
BIOS/STAT 513 Mathematical Statistics I	3
BIOS/STAT 514 Mathematical Statistics II	3
BIOS 524 Biostatistical Computing	3
BIOS 546 Theory of Linear Models	3
BIOS 553 Linear Regression	3
BIOS 554 Analysis of Variance	3
BIOS 567 Statistical Methods for High-throughput Genomic	3
Data I	
BIOS 571 Clinical Trials	3
BIOS 572 Statistical Analysis of Biomedical Data	3
Choose one of the following:	3
BIOS 632 Multivariate Analysis II	3
BIOS 667 Statistical Learning and Data Mining	3
BIOS 668 Statistical Methods for High-throughput Genomic	3
Data II	
BIOS 691 Special Topics in Biostatistics: systems biology or genetic epidemiology	3
Total graduate credit hours required (minimum)	33

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

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Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is

available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Epidemiology, Doctor of Philosophy (Ph.D.)

Graduate program director

Resa M. Jones, M.P.H., Ph.D.

Associate professor, Department of Family Medicine and Population Health rmjones2@vcu.edu

(804) 628-2519

Additional contact

Lisa Anderson, M.P.H.

(804) 628-2512

Program website: familymedicine.vcu.edu/epidemiology/phd/

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Epidemiology, Doctor of Philosophy (Ph.D.)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Ph.D.	Fall	Application strongly encouraged by Jan 1	GRE

Special requirements: Applicants must hold a master's degree, preferably in public health or a related field, and provide test scores as detailed below. Applicants must provide all required materials as described herein and in the VCU Admissions graduate application checklist.

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following minimum qualifications.

- Prior degree: Master's degree in public health (M.P.H.) or equivalent M.S. degree, (sociology, biology, mathematics) with a minimum GPA of 3.0
- GRE: Current GRE test results (taken within the past five years) with scores at or above the 75th percentile preferred in all components of the exam (e.g., minimum scores of 159 quantitative, 157 verbal and 4.5 analytical writing)
- 3. TOEFL: For non-native speakers of English, recommended minimum scores of either 100iBT, 600 PBT or IELTS scores of 6.5 (academic band score)
- 4. Personal statement: Applicants must include a personal statement that indicates their reasons for pursuing a doctoral degree in epidemiology, their particular areas of research focus or study, the departmental faculty advisers with whom the students would prefer to work and career goals upon graduation.
- Reference letters: Students must submit three letters of recommendation from three individuals who can assess the applicant's qualifications for graduate school. Letters from past professors or faculty advisers are most appropriate.
- 6. Current CV or resume: Students must submit a current CV or resume.

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General academic regulations for all graduate students in all graduate programs at VCU



Program mission

The mission of the Ph.D. program in epidemiology is to educate and train students to become independent, competent and self-directed research scientists so they can conduct outstanding clinical and population-based research. Students will learn methods for studying disease etiology and prevention in populations and evaluating interventions, diagnostic tests and treatment efficacy; they will implement such methods in an independent research study under the mentorship of an experienced epidemiology researcher.

Program goals

- Critical foundation skills: The program is designed to provide students with the critical skills required to advance to positions as epidemiological researchers/trainers in a broad spectrum of positions.
- Mastery and application of science: The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of epidemiology and ability to synthesize this information and apply this foundation to the identification of key areas of investigation/experimentation in bioscience.
- Communication: Students will develop skills in the various means of communicating both the core of epidemiological knowledge and the expression of epidemiological methodology, research design, results and interpretation to a variety of potential audiences.

Student learning outcomes

Students in the doctoral program in epidemiology will develop competencies in the following areas, as described in the lists below.

- 1. Theory and context
 - a. Demonstrate knowledge of the physiologic processes important in understanding pathogenesis of disease
 - Demonstrate an understanding of epidemiologic theories of disease causation, theories of bias in epidemiologic research, as well as general framework and other theories to understand distributions of disease occurrence
 - Demonstrate an in-depth understanding of at least one of the theories or frameworks that form the basis for epidemiologic research
 - d. Demonstrate the ability to link theoretical framework to the design, conduct and interpretation of epidemiologic research

5. Study design

- a. Have proven ability to construct a study question
- Define conceptual definitions of determinants, outcome variables and confounders in ways consistent with the theoretical framework guiding the research
- Create operational expressions of key variables such that misclassification and measurement error are minimized
- d. Demonstrate proficiency in selecting the most appropriate study designs in epidemiology (e.g., ecological studies, randomized trials, cohort, case-control, time series, difference-in-difference) such that bias is minimized and efficiency maximized
- e. Demonstrate proficiency in the construction of a primary data collection
- f. Understand the impact of measurement issues (misclassification and measurement error) on validity of the study, ability to use analyses to select the most appropriate measures during the design phase and understanding techniques for adjustment in analysis
- Demonstrate knowledge of what confounding is, how to identify potential confounders, strategies for prioritizing concerns regarding

- confounders and ability to minimize confounding through design and analysis
- Understand selection bias in the context of cohort and case-control studies, ways to minimize selection bias and know when correction techniques are viable
- i. Understand required elements to estimate sample size, know how to provide valid estimates of parameters for sample size equations
- Demonstrate knowledge of the impact of bias owing to loss of study participants and methods to minimize such bias, including the ability to devise retention strategies

11. Analysis

- a. Estimate and interpret measures of disease or event frequency and understand the inter-relationship between measures
- b. Estimate and interpret crude and model-based measures of association
- Demonstrate proficiency in selecting the appropriate measure of association for the specific study
- d. Understand statistical reasoning, including distributions, probability, sampling, methods of comparing means and approaches to estimating relationships among variables
- e. Implement analytic techniques to control for confounding
- f. Parameterize regression models, evaluate diagnostics of the model and interpret model-based measures of association
- g. Demonstrate ability to evaluate the extent to which a factor modifies the relationship between determinant and outcome under study
- h. Demonstrate proficiency in the application of advanced statistical methods appropriate for student research needs (e.g. hierarchical modeling, mixed-effects models, categorical data analysis, analytical techniques for evaluating spatial data)
- Use techniques to estimate causal effects from non-experimental study designs
- j. Conduct sensitivity analyses to understand the robustness of findings in light of sources of bias

11. Effective communication

- a. Understand others by listening and questioning
- b. Demonstrate proficiency in scientific writing (manuscripts, review of manuscripts, rebuttals to reviewers, grant writing)
- Effectively deliver oral presentations (e.g., scientific presentations to professional audiences, lectures to students and other teaching) including the appropriate use of audio/visual technologies
- d. Effectively communicate scientific information to multiple audiences (lay audiences and policymakers) for the purpose of translating science into policy and practice
- Demonstrate proficiency in leading discussions (e.g. journal club, seminar, brainstorming sessions)
- f. Construct and orally pose scientific questions related to research (e.g. discussant, ask questions, etc.)
- g. Demonstrate the ability to effectively communicate across disciplines
- 8. Data management and practical research skills
 - Be familiar with the availability, structure and procedures to access contemporary datasets for research in public use form on the Internet and in secure form via request processes
 - b. Demonstrate ability to implement methods for evaluating the strengths and limitations of data sources for evaluating specific study questions
 - c. Demonstrate expertise in the management of complex relational and hierarchical databases including merging, appending, aggregation and transposition of data structures, documentation, recoding of variables, and data conversion across different analysis software
 - d. Apply appropriate weighting schemes to population-based datasets
 - Have knowledge of security issues, as well as of HIPAA and other privacy regulations affecting data access and security requirements

- f. Execute methods for processing primary data, including developing systems for data entry and validation, data cleaning, and documentation (internal and external systems)
- Demonstrate proficiency in conducting thorough searches of the medical literature
- h. Demonstrate proficiency in the use of citation managers, presentation software and spreadsheets
- Ethical behaviors, administrative skills and personal and professional development
 - a. Demonstrate understanding of federal regulations and guidelines regarding the conduct of research with human subjects
 - Know and apply ethical principles and their application to public health research
 - Recognize potentially vulnerable populations and develop strategies for protection and advocacy on their behalf
 - Understand potential conflicts of interest and roles that may arise in research and develop strategies for addressing and managing these conflicts
 - Know guidelines for appropriate publication of findings, including issues of authorship, confidentiality and academic freedom, and provide appropriate citations and credit for the work of others

6. Leadership skills

- a. Demonstrate self-awareness of strengths and limitations, values, standards, and preferences on which to form leadership style
- b. Personify high standards of honesty, integrity, trust, openness, fairness and compassion
- Demonstrate academic decision-making consistent with abilities, values and preferences
- Take ownership of responsibilities and empower others by delegating appropriately
- e. Demonstrate value of diverse perspectives and treat people equitably
- f. Demonstrate ability to resolve conflicts with minimal damage to all involved

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students will be required to complete a minimum of 61 graduate credit hours as follows:

- 1. Five core courses focusing on epidemiological methods (15 credit hours)
- 2. Four semesters of journal club (four credit hours)
- Twelve credit hours of biostatistical theory and methods course work, including EPID 691 Special Topics (when the topic is analysis of health datasets)
- Three courses of substantive area electives, with at least one relating to the biological processes associated with the student's chosen substantive area (nine credit hours)
- 5. A minimum of two credit hours of practical research skills development
- 6. At least one course in the responsible conduct of research (one credit hour)
- 7. At least 18 credit hours of directed dissertation research

Students will also be required to complete the following:

Comprehensive exams

Comprehensive exams include a written examination that assesses knowledge of completed didactic course work on core epidemiologic and biostatistical methods as well as a tailored substantive section based on the student's research focus and an oral comprehensive exam based upon the student's dissertation proposal.

Dissertation

 The dissertation must be a hypothesis-based, analytical epidemiology project designed by the student under the supervision of the faculty adviser and advisory committee members as appropriate. Students develop and submit three manuscripts from the dissertation to peerreviewed journals. Students should have submitted at least two manuscripts before their final defense.

Curriculum requirements

Courses	Credit hour
Core courses	19
BIOS 553 Linear Regression	3
BIOS 554 Analysis of Variance	3
EPID 650 Epidemiologic Methods for Research	3
EPID 651 Intermediate Epidemiologic Methods for Research	3
EPID 652 Advanced Epidemiologic Methods and Data Analysis	3
EPID 690 Journal Club (four semesters; one credit hour per semester)	4
Methodological electives	12
EPID 691 Special Topics (required topic: analysis of health data sets)	3
Select nine additional credit hours from the following:	
BIOS 631 Multivariate Analysis I	3
BIOS 632 Multivariate Analysis II	3
BIOS 647 Survival Analysis	3
BIOS 691 Special Topics (spatial epidemiology)	3
CCTR 692 Special Topics in Translational Research (clinical trials: design implications)	3
EPID 620 Cancer Epidemiology	3
EPID 622 Maternal and Child Health	3
EPID 646 Epidemiology of Psychiatric and Substance Use Disorders	3
EPID 648 Behavioral Epidemiology	3
HGEN 603 Mathematical and Statistical Genetics	3
HGEN 619 Quantitative Genetics	3
PHAR 688 Applied Pharmacoepidemiology Research Methods SBHD 610 Behavioral Measurement	3
SBHD 610 Benavioral Measurement SBHD 631 Disseminating, Adopting and Adapting Evidence-based Prevention Programs	3
SBHD 633 Structural Equation Modeling	3
SBHD 637 Program Evaluation	3
SOCY 656 Social Network Analysis	3
URSP 621 Introduction to Geographic Information Systems	3
URSP 622 Community Socioeconomic Analysis Using GIS	3
URSP 625 Spatial Database Management and GIS Modeling	3
URSP 627 GIS Applications in Urban Design	3
Substantive area electives	9
Three courses of substantive area electives, at least one relating to the biological processes associated with the student's chosen substantive area.	
EPID 603 Public Health Policy and Politics	3
EPID 620 Cancer Epidemiology	3
EPID 622 Maternal and Child Health	3
EPID 646 Epidemiology of Psychiatric and Substance Use Disorders	3
EPID 648 Behavioral Epidemiology	3
GRTY 601 Biological and Physiological Aging	3
GRTY/PSYC 602 Psychology of Aging	3
GRTY 603 Social Gerontology	3
GRTY 604 Problems, Issues and Trends in Gerontology	4
GRTY 606 Aging and Human Values	3
GSWS 620 Theorizing Sexuality HCPR 720 Economics of Health Disparities	3
SBHD 611 Health Literacy	3
Spirit off ficaliti Eliciacy	3

SBHD 630 Theoretical Foundations of Social and Behavioral Health	3
SBHD 631 Disseminating, Adopting and Adapting Evidence- based Prevention Programs	3
SBHD 632 Health Disparities and Social Justice	3
SBHD 634 Patient-Provider Interaction	3
SBHD 637 Program Evaluation	3
SLWK 761 Interpersonal Violence	3
Practical research skills development	2 (minimum)
At least one course from the following:	
AHLP 716 Grant Writing and Project Management in Health	3
Related Sciences	
EPID 691 Special Topics (grant writing)	3
GRAD 601 The Academic Profession	2
GRTY 608 Grant Writing	2
Responsible research conduct	1
At least one course from:	
OVPR 601 Scientific Integrity	1
OVPR 602 Responsible Scientific Conduct	1
OVPR 603 Responsible Conduct of Research	1
Dissertation	18 (minimum)
EPID 697 Directed Research in Epidemiology	variable

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on doctoral programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.

Genetic Counseling, Master of Science (M.S.)

Program accreditation

Accreditation Council of Genetic Counseling

Graduate program director

Rachel B. Gannaway, M.S., C.G.C. Department of Human and Molecular Genetics rgannaway@vcu.edu (804) 628-3507

Additional contact

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Tahnee Causey M.S., C.G.C. Assistant program director and recruitment contact tcausey@vcu.edu (804) 628-4078

Program website: gen.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Human Genetics, Doctor of Philosophy (Ph.D.) Human Genetics, Doctor of Philosophy (Ph.D.)/Genetic Counseling, Master of Science in (M.S.) [dual degree]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Genetic Couns	seling, Master of Science	e (M.S.)	
Degree:	Semester(s)	Deadline	Test
M.S.	of entry: Fall	dates: Applications received	requirements:
101.5.	ran	prior to Jan 15 given priority consideration	years of application
			applicants must score 100 or greater on the
			TOEFL.

In addition to the general admission requirements of the VCU Graduate School:

- Applicants must have successfully completed undergraduate training and hold a baccalaureate degree from an accredited university or college.
- Prerequisites for admission include six credit hours each of biology, chemistry and behavioral science (psychology, anthropology, sociology, religion or philosophy) and three credit hours each of biochemistry, statistics and genetics. It is recommended that all prerequisite courses have been completed with 10 years of application.
- Students accepted to the program are generally drawn from applicants with an undergraduate grade-point average minimum of 3.0 (on a 4.0 scale or equivalent), with an average GPA of 3.3 to 3.5 for matriculating students.
- 4. The Graduate Record Examination is required for admission; there is no MCAT substitution. Matriculating students generally have GRE verbal scores at or above 153, quantitative scores at or above 144 and a performance above a score of 3.5 on the analytical section.
- Applicants holding an undergraduate degree from foreign institutions must display an acceptable level of English proficiency by achieving a score of 250 on the computer-based TOEFL examination or 600 on the written version.
- 6. Additionally, successful applicants often have experience with shadowing genetic counselors and medical geneticists, interviewing genetic counselors and exposure to individuals with physical and cognitive disabilities. Exposure to crisis hotlines, support groups and community activities related to individuals with disability and genetic conditions is also helpful.

Note: The department receives an average of 80 to 100 applications annually. Of those, 25 to 30 are invited for an onsite interview, and five to seven students matriculate

In the last five certification cycles (2009 to 2013), graduates of the program have an 86% pass rate on the ABGC/ACGC national certification examination.

The program participates in the AGCPD program match. Please see the NSGC website for information for prospective students at nsgc.org/p/cm/ld/fid=44#accept.

Note: See also information regarding the Virginia Leadership Education in Neurodevelopmental Disabilities VA-LEND Certificate at wp.vcu.edu/virginialend.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

- 1. Competency in genetic counseling
- 2. Eligibility for certification by the American Board of Genetic Counseling.
- 3. Preparation for careers in genetic counseling and human genetics

Successful candidates will demonstrate competency in all four genetic counseling domains: I – communication skills, II – critical thinking skills, III – interpersonal, counseling and psychosocial assessment skills and IV – professional ethics and values

Student learning outcomes

- Competency in practice: The candidate should demonstrate development of
 competency in the responsible practice of genetic counseling. This will be
 assessed in the clinical setting by certified genetic counselors and medical
 geneticists. The assessment is based upon the clinical competencies
 established by the American Board of Genetic Counseling. This competency
 is documented with written and oral evaluations at the completion of each of
 the seven clinical rotations by the rotation supervisor.
- 2. General knowledge of sciences: The candidate should demonstrate a general knowledge of the elements of the sciences as related to genetic molecular/cellular bioscience and a detailed knowledge of his or her area of research, including an appropriate familiarity with the research literature. The student is evaluated by academic performance, face-to-face and written evaluation of clinical performance in multiple rotations by multiple supervisors and annual written and oral exams.
- 3. Communication skills: The candidate should demonstrate that an appropriate level of oral, written and visual communication skills have been acquired. This is achieved by evaluations of clinical rotations both written and verbal that are based on the competencies established by the American Board of Genetic Counseling and the scope of practice as set forth by the National Society of Genetic Counselors

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students must complete a minimum total of 60 credit hours. The program is a full-time, on-campus program. Students are expected to complete their course work in four semesters (21 consecutive months). To be considered full-time, the VCU School of Medicine requires students to register for 15 credit hours in the fall and spring semesters. Occasionally special circumstances may occur that could require a temporary leave of absence. The VCU Graduate School requires that master's degrees be completed in a maximum of six years.

In order to be considered in good academic standing, a student must maintain a 3.0 GPA. Students who fail to maintain a 3.0 average are permitted one semester to bring their averages up to the required level.

As part of their course work, students begin clinical rotations in the spring semester of the first year and continue through both semesters of the second year. Students are required to engage in clinical experiences during the intervening summer as well

Students must pass a written comprehensive exam at the conclusion of the first two semesters of study and a written and oral comprehensive exam prior to graduation.

Students are required to complete a research project during their course of study. The purpose of the research project is to give the student hands-on experience in developing a research question or exploring a professional or program problem, reviewing the literature, and attempting to answer the question or problem. Projects will enhance the student's professional development and represent a strong component of the "portfolio" of experience brought to the job interview process. Projects can range from laboratory to clinical and may include development of educational materials, videotapes or patient protocols. All projects are required to have defined goals and/or hypotheses to be tested. Institutional review board application and review is often required for student research. Publication and professional presentation are strongly encouraged.

Students are encouraged to consider projects in the first semester and to choose a project topic by the second semester. The project proposal is due to the program director by the first of June during the student's first year of study. All project proposals must be approved by the faculty member with whom the project will be performed and the program director. Some projects will require review by the Office of Research and Innovation for subject protections, and some projects may require that the student seek grant funding or participate on an existing faculty grant. The student is responsible for preparing documents and meeting these requirements in a timely fashion.

By the beginning of the fall semester of the second year, students must have selected the members of their research committees. The research committee must include at least three faculty members with one outside of the department. Additional members may be added if needed for optimal project advising.

The student's supervisors and the genetic counseling program director work together in mentoring the student. Students are provided ongoing written and verbal evaluation regarding their academic and clinical progress.

In addition to participating in course work and counseling rotations, students in the department also participate in a number of community and education programs.

The straddling of the student and professional roles is a lifelong process in the changing field of human genetics and genetic counseling. Graduates of this program will be contributing members of the clinical genetics team of counselors, physicians and basic scientists and contributing members of commercial genetic testing laboratories and the developing field of human genomic medicine.

Curriculum requirements

Courses	Credit hours
Required courses	57
ANAT 612 Human Embryology	2
CLED 602 Techniques of Counseling	3
HGEN 501/BIOL 530 Human Genetics	3
HGEN 502 Advanced Human Genetics	3
HGEN 510 Classic Papers in Human Genetics	1
HGEN 525-526 Practice of Genetic Counseling	6
HGEN 527-528 Medical Genetics	6

HGEN 600 Clinical Genetics (placement)	1
HGEN 600 Clinical Genetics (rotation)	9
HGEN 622 Cancer Genetic Counseling	3
HGEN 690 Genetics Research Seminar	4
HGEN 691 Special Topics in Genetics	2
HGEN 697 Directed Research in Genetics	6
IDDS 602 Leadership in Developmental Disability	2
OVPR 601 Scientific Integrity, OVPR 602 Responsible	1
Scientific Conduct or OVPR 603 Responsible Conduct of	
Research	
PATH 691 Special Topics in Modern Instrumental Methods	2
(diagnostic genetic testing)	_
SLWK 609 Foundations of Research in Social Work Practice	3
	_
Recommended electives	3
ALHP 708 Ethics and Health Care	3
CLED 630 Clinical Supervision in the Counseling Profession	3
ECSE 541 Educational Foundations for Collaboration and Universally Designed Learning	3
EPID 580 Public Health Ethics	1
EPID 600 Introduction to Public Health	3
EPID 603 Public Health Policy and Politics	3
PHIL 602 Biomedical Ethics	3
PHIS 619 Mitochondrial Pathophysiology and Human Diseases	3
PSYC 650 Advanced Child Psychopathology	1 or 3
RHAB 614 Counseling, Death and Loss	3
SBHD 605 Introduction to Social and Behavioral Health	3
SBHD 608 Health Communication	3
SEDP 532 Understanding Autism Spectrum Disorder	3
Other electives may be acceptable with written approval by the program director.	

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Healthcare Policy and Research, Doctor of Philosophy (Ph.D.)

Graduate program director

Andrew Barnes, Ph.D.

Assistant professor, Department of Healthcare Policy and Research abarnes3@vcu.edu

Additional contact

Kate A. Grant Education coordinator kagrant@vcu.ed (804) 828-5329

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Program website: healthpolicy.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Healthcare Policy and Research, Doctor of Philosophy (Ph.D.)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Ph.D.	Fall	Jan 15 (Applications received prior to this date given priority consideration.)	

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following minimum qualifications.

- Applicants must have completed a college-level course in calculus with a minimum grade of B.
- 2. Applicants must have graduated from an accredited university or its equivalent, with a master's degree in a related discipline (e.g., economics, public health, public policy, health administration, public administration). Applicants must have completed relevant course work (including microeconomics and introductory statistics) or have professional experience in a health-related field (two years minimum) that provides an appropriate background for graduate-level study in healthcare policy and research.
- Applicants must have taken the Graduate Record Exam within the past five years; scores in the 75th percentile preferred.
- 4. Applicants from countries where English is not the primary and official national language must complete one of the following:
 - English proficiency verification through official TOEFL score 550 or higher
 - Graduate with a master's degree following two years of study at a U.S. institution
 - c. English language proficiency certification through appropriate English training programs at other U.S. institutions, or English language proficiency certification by passing the English Language Proficiency Examination and/or the corresponding English Language Institute

courses

VCU policy also requires that prospective students who have studied outside of the U.S. must provide an official WES or ECE external credential evaluation as a required part of the admissions process.

- 5. Applicants must present three letters of recommendation from individuals who are in a position to judge their ability to engage in interdisciplinary graduate study in healthcare policy and research. At least one recommendation must be from an individual who can comment on the applicant's academic qualifications (e.g., former instructor or adviser).
- A written statement of professional intent that includes the proposed area of research interest is required.
- 7. Applicants must present a curriculum vitae or resume
- A recent writing sample, such as a first author, peer-reviewed publication; a
 master's thesis; a book chapter; a policy brief or report; or a graduate course
 paper is required. An undergraduate course paper may be substituted if none
 of the above is available.
- Prospective students must be available to interview either in person or teleconference via technology such as Skype.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The doctoral program in healthcare policy and research will equip students with an understanding of economic, political and social factors that affect access to care and the quality and cost of health care. Graduates of this program will have strong methodological and theoretical skills that will prepare them to make important contributions to the fields of health care policy and public health. Their training will enable them to add to scientific knowledge about how health policy, social factors, financing systems, organizational structures, care processes, health technologies and personal behaviors affect health care outcomes. Program graduates will also be able to formulate and analyze health care policy and to plan, implement and evaluate health programs and policies. Finally, program graduates will have experience working with colleagues in public health, medicine and other disciplines to help them translate research findings into practice rapidly.

Train students as health policy researchers

Students in the doctoral program in healthcare policy and research will acquire the skills to conduct independent research into economic, political and social factors that affect access to care and the quality and cost of health care. The program will provide students with the training required to advance to positions as health policy researchers in academia, government or the private sector.

The structure of the program provides a framework for the progressive development of a mastery of design and implementation of research and the ability to synthesize this information in ways that are policy-relevant.

In addition, students will develop the various means of communicating fundamental economic and policy knowledge and particular study designs, results

and interpretations to a variety of audiences.

The program relates the above framework to the skills needed to address a wide range of issues in the health services research, economics and policy areas.

Student learning outcomes

- Knowledge of the development and implementation of health policy:
 Students will demonstrate an appropriate level of knowledge of the current elements of health care policy and economics as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications and theoretical and conceptual models, as measured by rubric.
- Critical thinking: Students will demonstrate an appropriate level of ability to interpret information relevant to health policy and health services research, to connect theoretical frameworks to study design and evidence, to draw reasonable conclusions, and to generate and evaluate alternate explanations, as measured by rubric.
- Specialized knowledge: Students will demonstrate knowledge of the issues, research literature, conceptual frameworks and research tools in one or more content domains within the field of health policy and health services research, as measured by rubric.
- 4. Study design and implementation: Students will demonstrate the ability to design and conduct original health services and health policy research that draws from economic theory, from the initial conception of an idea to research question development, study design, data collection and selection, as measured by rubric.
- Quantitative skills: Students will demonstrate the application of appropriate analytic methods and interpretation of results, as measured by rubric
- 6. Oral communication skills: Students will demonstrate the achievement of an appropriate level of skill in the oral communication of health care policy subject matter with respect to content, organization, logical flow, presentation, use of language and incorporation of visual aids to both technical and lay audiences, as measured by rubric.
- 7. Written communication skills: Students will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling, vocabulary and use of figures, tables and citations to effectively present health services research and health care policy information, as well as translate research findings into publication-quality manuscripts, as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, a cumulative GPA of 3.0 must be maintained. Students must receive a minimum grade of B for all required courses. A student who receives a grade of C in a required course shall repeat the course. A second grade of C in a required course shall result in dismissal from the program. At the discretion of the HCPR committee, a student who is retaking a required course may still be eligible to take the comprehensive examination and to start the dissertation prior to repeating the course.

At the end of the second year of required course work, students will take a written comprehensive examination designed to evaluate the student's ability to:

- 1. Integrate course material
- Demonstrate critical thinking and evaluation of the literature in health care policy and research
- 3. Demonstrate quantitative analysis skills

After passing the written comprehensive examination, the student will schedule the proposal defense within six months. Following successful defense of the proposal, the student will prepare three manuscripts of publishable quality that will comprise the body of the dissertation and will orally defend the dissertation. It is anticipated that students will complete the program in four to five years. All requirements for the Ph.D. degree must be completed within six years from the date of admission to the degree program. Extensions may be approved in extenuating circumstances.

Curriculum requirements

Courses Credit hours

Required courses	38
ECON 501 Introduction to Econometrics (BIOS 553 may be	3
substituted with approval)	
ECON 612 Econometrics	3
ECON 642 Panel and Nonlinear Methods in Econometrics	3
(BIOS 625, 631 or 647 may be substituted with approval)	
EPID 650 Epidemiologic Methods for Research	3
HCPR 699 Departmental Seminar (one-credit course repeated	4
for four credits)	
HCPR 701 Health Services Research and Policy I	3
HCPR 702 Health Services Research and Policy II	3
HCPR 703 Health Economics: Theory and Principles	3
HCPR 730 Survey Research Methods and Analysis for Health	3
Policy	
HCPR 732 Research Design and Proposal Preparation	3
HCPR 733 Statistical Methods in Analysis of Healthcare	3
Research	
HCPR 734 Economic Evaluation and Decision Analysis in	3
Health	
OVPR 601 Scientific Integrity, OVPR 602 Responsible	1
Scientific Conduct or OVPR 603 Responsible Conduct of	
Research	
Research	9
HCPR 899 Directed Research (variable credit)	9 (minimum)
(,	. ,
Electives	12
Choose 12 credit hours from the following approved list or other	
courses approved by the program director.	
courses approved by the program uncetor.	
BIOS 554 Analysis of Variance	3
BIOS 615 Advanced Inference	4
BIOS 616 Advanced Inference	4
	4
BIOS 625 Categorical Data Analysis and Generalized Linear	4
	•
Models PIOS 621 Multivarieta Anglysia I	
BIOS 631 Multivariate Analysis I	4
BIOS 631 Multivariate Analysis I BIOS 647 Survival Analysis	4 3
BIOS 631 Multivariate Analysis I BIOS 647 Survival Analysis ECON 604 Advanced Microeconomic Theory	4 3 3
BIOS 631 Multivariate Analysis I BIOS 647 Survival Analysis ECON 604 Advanced Microeconomic Theory ECON 616 Advanced Public Finance	4 3 3 3
BIOS 631 Multivariate Analysis I BIOS 647 Survival Analysis ECON 604 Advanced Microeconomic Theory ECON 616 Advanced Public Finance ECON 631 Labor Market Theory and Analysis	4 3 3 3 3
BIOS 631 Multivariate Analysis I BIOS 647 Survival Analysis ECON 604 Advanced Microeconomic Theory ECON 616 Advanced Public Finance	4 3 3 3
BIOS 631 Multivariate Analysis I BIOS 647 Survival Analysis ECON 604 Advanced Microeconomic Theory ECON 616 Advanced Public Finance ECON 631 Labor Market Theory and Analysis	4 3 3 3 3
BIOS 631 Multivariate Analysis I BIOS 647 Survival Analysis ECON 604 Advanced Microeconomic Theory ECON 616 Advanced Public Finance ECON 631 Labor Market Theory and Analysis ECON 641 Econometric Time-series Analysis	4 3 3 3 3 3 3
BIOS 631 Multivariate Analysis I BIOS 647 Survival Analysis ECON 604 Advanced Microeconomic Theory ECON 616 Advanced Public Finance ECON 631 Labor Market Theory and Analysis ECON 641 Econometric Time-series Analysis ECON 682 An Economic Approach to Environmental Issues	4 3 3 3 3 3 3 3
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OPER 643 Decision and Risk Analysis	3
OPER 645 Queuing Theory	3
OPER 647 Multi-objective Decision Analysis	3
OPER 741 Advanced Stochastic Simulation	3
OPER 743 Decision Analysis II	3
PHAR 651 Medical Access and Care for Underserved	3
Populations	
PHAR 671 Applied Pharmacoeconomics and Outcomes	3
Research	
PHAR 689 Pharmaceutical Policy Analysis	3
PPAD 712 Seminar in Public Policy II	3
PPAD 715 U.S. Political Processes and Institutions	3
PPAD 716 Public Policy Economics	3
PPAD 717 Law and Public Policy	3
PPAD 721 Survey of Applied Research Methods in Public	3
Policy	
PPAD 723 Survey Research Methods	3
PPAD 730 Seminar in Health Policy	3
SBHD 605 Introduction to Social and Behavioral Health	3
SBHD 610 Behavioral Measurement	3
SBHD 632 Health Disparities and Social Justice	3
SBHD 633 Structural Equation Modeling	3
SBHD 637 Program Evaluation	3
SOCY 603 Seminar in Population Studies	3
SOCY 645 The Sociology of Health and Illness	3
SOCY 656 Social Network Analysis	3
STAT 645 Bayesian Decision Theory	3
STAT 744 Regression II	3
STAT 745 Advanced Bayesian Statistics	3
URSP 621 Introduction to Geographic Information Systems	3
URSP 622 Community Socioeconomic Analysis Using GIS	3
Total graduate credit hours required (minimum)	59

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Enrolled students may access the program handbook on Blackboard.

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on doctoral programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.

Human Genetics, Doctor of Philosophy (Ph.D.)

Graduate program director

Rita Shiang, Ph.D.

Associate professor, Department of Human and Molecular Genetics rshiang@vcu.edu (804) 628-4083

Additional contact

Michael S. Grotewiel, Ph.D. Director of admissions msgrotewiel@vcu.edu (804) 628-4086

Program website: gen.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Human Genetics, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Human Genetics, Doctor of Philosophy (Ph.D.) with a concentration in quantitative human genetics

Human Genetics, Master of Science (M.S.)

Human Genetics, Doctor of Philosophy (Ph.D.)/Genetic Counseling, Master of Science (M.S.) [dual degree]

Human Genetics, Master of Science (M.S.) with a concentration in molecular biology and genetics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Human Genetics, Doctor of Philosophy (Ph.D.)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Ph.D.	Fall	Applications received prior to Jan 15 given priority consideration	GRE

Special requirements: International applicants must score 100 or greater on the TOEFL.

MCAT or DAT acceptable in lieu of GRE for combined professional/academic degree programs, but not for dual degree academic programs.

Applications for the program must be submitted to the Biomedical Sciences Doctoral Portal – School of Medicine – Ph.D. selected from the drop-down menu of programs on the VCU online application form.

In addition to the general admission requirements of the VCU Graduate School, successful applicants will typically have the following credentials:

- A baccalaureate degree or its equivalent at the time of enrollment, with an undergraduate GPA of 3.5
- Current GRE scores (taken within the past five years), with scores at the 75th percentile or greater preferred

- TOEFL scores of 600 (pBT), 250 (cBT) or 100 (iBT) for individuals for whom English is a second language; or 6.5 on the IELTS (To report GRE or TOEFL score, use VCU Code 5570.)
- 4. Personal statements, which should include: long-term career goals to assess reasons behind the candidate's application; how a Ph.D. in biomedical science helps achieve those goals; the factors motivating a career in research; research experience, including dates, places and duration
- 5. Three letters of recommendation that speak to the scientific competency and experience of the applicant
- The equivalent of two semesters of general chemistry, two semesters of organic chemistry and two semesters of upper-level biology courses (e.g. cell biology, molecular biology, biochemistry, genetics, neuroscience, physiology, biophysics, etc.)

The Department of Human and Molecular Genetics offers a comprehensive program in graduate study leading to a Doctor of Philosophy in Human Genetics. The program includes the completion of an original research project under the supervision of a faculty adviser and a background/foundation of courses that prepare students for research-oriented careers in the rapidly expanding field of human genetics. Major areas of study available to Ph.D. students in the program include clinical and molecular cytogenetics, molecular genetics, developmental genetics, cancer genetics, behavior genetics, population and quantitative genetics, genetic epidemiology, clinical genetics and genetic counseling. Once core course work requirements have been completed, the student's course plan is tailored to meet individual needs with regard to the area of research focus. A concentration in quantitative human genetics is available for those planning a career in this area. For more detailed information on the program visit gen.vcu.edu/graduate-programs/phd-in-human-genetics.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The program is designed to provide students with training in human and molecular genetics and with the skills required to advance to positions as researchers and trainers in a broad spectrum of positions in human and molecular genetics. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter in human and molecular genetics and an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation in this discipline. The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified. In addition, the program will develop skills in the various means of communicating both the core of human and molecular genetics knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.

Student learning outcomes

- Oral communication skills: The candidate will demonstrate the achievement
 of an appropriate level of oral communication skills with respect to the
 content, organization, logical flow, presentation and appropriate use of
 language incorporating the use of visual aids, as measured by rubric.
- Written communication skills: The candidate will demonstrate the
 achievement of an appropriate level of written communication skill with
 respect to grammar, syntax, spelling and use of vocabulary to effectively
 present information including the use of figures, tables and citations as
 measured by rubric.
- Experimental design: The candidate will demonstrate the achievement of an
 appropriate level of competence in the ability to appraise, modify and/or
 create, and implement experimental protocols and to design and develop
 experiments as measured by rubric.
- 4. Problem-solving skills: The candidate will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in research in human and molecular genetics, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 5. Integrated knowledge of human and molecular genetics: The candidate will demonstrate an appropriate level of knowledge of the current elements of human and molecular genetics as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students must complete a minimum of 86 graduate credit hours. The program requires at least three years of study for students entering with a B.S. or B.A. degree and must be completed within eight years.

The training programs in human and molecular genetics are intended to set the tone for a career and lifelong learning in human and molecular genetics by developing the student's knowledge of the field and skills in writing, laboratory techniques, critical thinking, data interpretation, study design, literature research and review, and integration of data from multiple disciplines while fostering the student's development as an independent researcher, laboratory director or teacher. These programs also seek to provide students with a core foundation of knowledge that will equip them to carry out translational research and for later work leading to certification by the American Board of Medical Genetics.

Students working toward the Ph.D. degree in human genetics pass through two stages of graduate study. The first stage consists primarily of course work recommended by the department and the student's graduate committee; the second stage consists of original research leading to the doctoral dissertation. Ph.D. students are expected to complete the required course work within four semesters and one summer, and they are intended to set the tone of a lifelong research career. In order to be considered in good academic standing, a student must maintain a 3.0 grade point average. The focus then shifts to the student's development as an independent researcher with emphasis being placed upon the development and execution of an original research project leading to the doctoral dissertation.

After the second year of study, students will take the Ph.D. candidacy examination. This exam comprises two parts, a departmental comprehensive examination and a written NIH-style application with an oral examination administered by the student's graduate committee. Upon successfully completing the departmental comprehensive and the oral exam, the student is admitted to Ph.D. candidacy. At this point, students are expected to develop and conduct dissertation research projects and to write and defend their dissertations describing their dissertation research.

Curriculum requirements

Required courses BIOC/MICR 503 Biochemistry, Cell and Molecular Biology 5 BIOC/MICR 504 Biochemistry, Cell and Molecular Biology 5 BIOS/STAT 543 Statistical Methods I 3	Courses	Credit hou
BIOC/MICR 504 Biochemistry, Cell and Molecular Biology 5	Required courses	
3,	BIOC/MICR 503 Biochemistry, Cell and Molecular Biology	5
BIOS/STAT 543 Statistical Methods I 3	BIOC/MICR 504 Biochemistry, Cell and Molecular Biology	5
	BIOS/STAT 543 Statistical Methods I	3

HGEN 501/BIOL 530 Human Genetics	3
HGEN 502 Advanced Human Genetics	3
HGEN 510 Classic Papers in Human Genetics	1
HGEN 606 Introduction to Clinical Genetics	1
HGEN 610 Current Literature in Human Molecular Genetics (one-credit course taken every fall and spring semester)	variable
HGEN 614 Pathogenesis of Human Genetic Disease	3
HGEN 690 Genetics Research Seminar (one-credit course taken every semester beginning in the spring term of the first year of study)	variable
IBMS 600 Laboratory Safety	1
IBMS 610 Laboratory Opportunities	0.5
IBMS 620 Laboratory Rotations (two-credit course taken for three rotations)	6
IBMS 680 Proposal Preparation	1
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	1
All Ph.D. students are required to take at least two elective courses for a minimum of five credit hours. Electives include PATH 670 and courses at the 500 level or above in ANAT, BIOC, BIOL, BIOS, HGEN, MICR, NEUS, PHTX and PHIS excluding laboratory courses, courses specifically for professional programs (e.g. HGEN 600 Clinical Genetics), directed research, independent study, seminar or current topic courses, BNFO 621, MICR 608 and MICR 609.	5

Additional elective courses and directed research

Additional elective courses and HGEN 697 Directed Research in variable Genetics (1-15 variable credit hours) are taken to reach the required minimum of 86 credit hours.

Total graduate credit hours required (minimum)

86

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

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A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

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Human Genetics, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Graduate program director

Gail E. Christie, Ph.D.

Professor, Department of Microbiology and Immunology christie@vcu.edu (804) 828-9093

Program website: vcu.edu/mbg

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Human Genetics, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Human Genetics, Doctor of Philosophy (Ph.D.) with a concentration in quantitative human genetics

Human Genetics, Doctor of Philosophy (Ph.D.)/Genetic Counseling, Master of Science (M.S.) [dual degree]

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Admission requirements

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Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall	Applications rece prior to Jan 15 gi	eived GRE, MCAT or DAT ven

priority consideration

Special requirements: MCAT or DAT acceptable in lieu of GRE for combined professional/academic degree programs

Applications for the program must be submitted to the Biomedical Sciences Doctoral Portal – School of Medicine – Ph.D. selected from the drop-down menu of programs on the VCU online application form.

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- 4. Personal statements, which should include: long-term career goals to assess reasons behind the candidate's application; how a Ph.D. in biomedical science helps achieve those goals; the factors motivating a career in research; research experience, including dates, places and duration
- Three letters of recommendation that speak to the scientific competency and experience of the applicant

- The equivalent of two semesters of general chemistry, two semesters of organic chemistry and two semesters of upper-level biology courses (e.g. cell biology, molecular biology, biochemistry, genetics, neuroscience, physiology, biophysics, etc.)
- 7. Laboratory experience also strongly recommended

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The molecular biology and genetics curriculum is an integrated interdisciplinary program of study that builds on the graduate programs of participating departments in the School of Medicine. The doctoral curriculum is designed to be an intensive course of study that will provide students with the skills required to advance to research-oriented careers in biotechnology.

- The curriculum includes core, specialization and elective courses. Electives drawn from various departments allow individual specialization.
- 2. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience, an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation. The program relates this framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified.
- In addition, the program will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences
- The program centers on a research project conducted under the guidance of a selected faculty mentor and culminates in the presentation and defense of a doctoral dissertation

Participating faculty are associated not only with programs and departments within the School of Medicine, but also with the VCU Massey Cancer Center, the Philips Institute for Oral and Craniofacial Molecular Biology (School of Dentistry), the Institute of Structural Biology and Drug Discovery (School of Pharmacy) and the VCU Center for the Study of Biological Complexity (VCU Life Sciences).

The interdisciplinary approach to the solution of biological problems provided by this training is designed to develop in students the flexibility and problem-solving skills necessary for success in a variety of scientific career opportunities or further graduate study.

Student learning outcomes

 Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.

- 2. General knowledge of sciences: Degree candidates will demonstrate an appropriate level of knowledge of the current elements of the biosciences as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications, as measured by rubric.
- Communication skills: Degree candidates will demonstrate that an appropriate level of oral, written and visual communication skills have been acquired.
 - a. Oral communication skills: Degree candidates will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric.
 - b. Written communication skills: Degree candidates will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.
- 4. Experimental design: Degree candidates will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students must complete a minimum of 86 graduate credit hours.

During the first year, students pursue research rotations, take formal course work and become familiar with current research topics through seminars, discussion groups and lectures by distinguished scientists. By the end of the first year, students choose a faculty adviser and begin dissertation research. Prior to the beginning of the third year of study, students should successfully pass written and oral candidacy examinations. Following completion of the research project and defense of the doctoral dissertation, graduates are equipped to participate in a broad range of current biomedical research areas.

Curriculum requirements

Courses

Courses	Credit nours
Required courses	variable
BIOC 503-504 Biochemistry, Cell and Molecular Biology	10
BIOC 602 Physical Properties of Macromolecules (modules 1 and 2)	2
HGEN 501/BIOL 530 Human Genetics	3
HGEN 602 Genetic Models of Disease or HGEN 614 Pathogenesis of Human Genetic Disease	3
IBMS 600 Laboratory Safety	1
IBMS 610 Laboratory Opportunities	0.5
IBMS 620 Laboratory/Clinical Rotations (two-credit course taken for three rotations)	6
IBMS 630 Critical Thinking (or BIOC 691 or HGEN 691 equivalents)	1
IBMS 680 Proposal Preparation	1
IBMS 690 Basic Health Sciences Research Seminar (first year only)	1
MICR 605 Prokaryotic Molecular Genetics	3
MICR 607 Techniques in Molecular Biology and Genetics	2
MICR 690 Microbiology Research Seminar (section 002 – MBG; one-credit course to be taken every semester beginning in the second year)	variable
MICR 693 Topics in Molecular Biology and Genetics (MBG journal club - must take at least twice)	2

OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research

Directed research and electives

variable variable

Students will register for a variable number of credit hours of HGEN 697 Directed Research in Genetics and electives to amass the required minimum of 86 credit hours.

Total graduate credit hours required (minimum)

86

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Credit hours

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on doctoral programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.

Human Genetics, Doctor of Philosophy (Ph.D.) with a concentration in quantitative human genetics

Graduate program director

Rita Shiang, Ph.D.

Associate professor, Department of Human and Molecular Genetics rshiang@vcu.edu (804) 628-4083

Additional contacts

Michael S. Grotewiel, Ph.D.

Director of admissions msgrotewiel@vcu.edu (804) 628-4086

Timothy P. York, Ph.D. Assistant graduate program director tpyork@vcu.edu (804) 828-8757

Program website: gen.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Human Genetics, Doctor of Philosophy (Ph.D.)

Human Genetics, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Human Genetics, Doctor of Philosophy (Ph.D.)/Genetic Counseling, Master of Science (M.S.) [dual degree]

Human Genetics, Master of Science (M.S.)

Human Genetics, Master of Science (M.S.) with a concentration in molecular biology and genetics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Human Genetics, Doctor of Philosophy (Ph.D.) with a concentration in quantitative human genetics

Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall	Applications received	GRE
		prior to Jan 15 given	
		priority consideration	

Special requirements: International applicants must score 100 or greater on the TOEFL.

MCAT or DAT acceptable in lieu of GRE for combined professional/academic degree programs, but not for dual degree academic programs.

Applications for the program must be submitted to the Biomedical Sciences Doctoral Portal – School of Medicine – Ph.D. selected from the drop-down menu of programs on the VCU online application form.

In addition to the general admission requirements of the VCU Graduate School, successful applicants will typically have the following credentials:

- 1. A baccalaureate degree or its equivalent at the time of enrollment, with an undergraduate GPA of 3.5
- 2. Current GRE scores (taken within the past five years), with scores at the 75th percentile or greater preferred
- TOEFL scores of 600 (pBT), 250 (cBT) or 100 (iBT) for individuals for whom English is a second language; or 6.5 on the IELTS (To report GRE or TOEFL score, use VCU Code 5570.)
- 4. Personal statements, which should include: long-term career goals to assess reasons behind the candidate's application; how a Ph.D. in biomedical science helps achieve those goals; the factors motivating a career in research; research experience, including dates, places and duration
- Three letters of recommendation that speak to the scientific competency and experience of the applicant
- The equivalent of two semesters of general chemistry, two semesters of
 organic chemistry and two semesters of upper-level biology courses (e.g. cell
 biology, molecular biology, biochemistry, genetics, neuroscience, physiology,
 biophysics, etc.)

The Department of Human and Molecular Genetics offers a comprehensive program in graduate study leading to a Doctor of Philosophy in Human Genetics. The program includes the completion of an original research project under the supervision of a faculty adviser and a background/foundation of courses that prepare students for research-oriented careers in the rapidly expanding field of human genetics. Major areas of study available to Ph.D. students in the program include clinical and molecular cytogenetics, molecular genetics, developmental genetics, cancer genetics, behavior genetics, population and quantitative genetics, genetic epidemiology, clinical genetics and genetic counseling. Once core course work requirements have been completed, the student's course plan is tailored to meet individual needs with regard to the area of research focus. A concentration in

quantitative human genetics is available for those planning a career in this area. For more detailed information on the program visit gen.vcu.edu/graduate-programs/phd-in-human-genetics.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The program is designed to provide students with the skills required to advance to positions as researchers and trainers in a broad spectrum of positions in human and molecular genetics. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter in human and molecular genetics and an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation in this discipline. The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified. In addition, the program will develop skills in the various means of communicating both the core of human and molecular genetics knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.

Student learning outcomes

- Oral communication skills: The candidate will demonstrate the achievement
 of an appropriate level of oral communication skills with respect to the
 content, organization, logical flow, presentation and appropriate use of
 language incorporating the use of visual aids, as measured by rubric.
- Written communication skills: The candidate will demonstrate the
 achievement of an appropriate level of written communication skill with
 respect to grammar, syntax, spelling and use of vocabulary to effectively
 present information including the use of figures, tables and citations as
 measured by rubric.
- Experimental design: The candidate will demonstrate the achievement of an
 appropriate level of competence in the ability to appraise, modify and/or
 create, and implement experimental protocols and to design and develop
 experiments as measured by rubric.
- 4. Problem-solving skills: The candidate will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in research in human and molecular genetics, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 5. Integrated knowledge of human and molecular genetics: The candidate will demonstrate an appropriate level of knowledge of the current elements of human and molecular genetics as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students must complete a minimum of 86 graduate credit hours. The program requires at least three years of study for students entering with a B.S. or B.A. degree and must be completed within eight years.

The training programs in human and molecular genetics are intended to set the tone for a career and lifelong learning in human and molecular genetics by developing the student's knowledge of the field and skills in writing, laboratory techniques, critical thinking, data interpretation, study design, literature research and review, and integration of data from multiple disciplines while fostering the student's development as an independent researcher, laboratory director or teacher. These programs also seek to provide students with a core foundation of knowledge that will equip them to carry out translational research and for later work leading to certification by the American Board of Medical Genetics.

Students working toward the Ph.D. degree in human genetics pass through two stages of graduate study. The first stage consists primarily of course work recommended by the department and the student's graduate committee; the second stage consists of original research leading to the doctoral dissertation. Ph.D. students are expected to complete the required course work within four semesters and one summer, and they are intended to set the tone of a lifelong research career. In order to be considered in good academic standing, a student must maintain a 3.0 grade point average. The focus then shifts to the student's development as an independent researcher with emphasis being placed upon the development and execution of an original research project leading to the doctoral dissertation.

After the second year of study, students will take the Ph.D. candidacy examination. This exam comprises two parts, a departmental comprehensive examination and a written NIH-style application with an oral examination administered by the student's graduate committee. Upon successfully completing the departmental comprehensive and the oral exam, the student is admitted to Ph.D. candidacy. At this point, students are expected to develop and conduct dissertation research projects and to write and defend their dissertations describing their dissertation research.

Curriculum requirements

Courses	Credit hours
Required courses	
ANAT 620 Scientific Writing and Grantsmanship (HGEN 614 Pathogenesis of Human Genetic Disease can fulfill this requirement with three credits.)	2
BIOC/MICR 503 Biochemistry, Cell and Molecular Biology	5
CCTR 702 Statistics for Genetic Studies I	3
CCTR 703 Statistics for Genetic Studies II	3
HGEN 501/BIOL 530 Human Genetics	3
HGEN 502 Advanced Human Genetics	3
HGEN 510 Classic Papers in Human Genetics	1
HGEN 603 Mathematical and Statistical Genetics	3
HGEN 606 Introduction to Clinical Genetics	1
HGEN 610 Current Literature in Human Molecular Genetics (one-credit course taken every fall and spring semester)	variable
HGEN 619 Quantitative Genetics	3
HGEN 690 Genetics Research Seminar (one-credit course taken every semester beginning in the spring term of the first year of study)	variable
HGEN 697 Directed Research in Genetics	variable
IBMS 600 Laboratory Safety	1
IBMS 610 Laboratory Opportunities	0.5
IBMS 620 Laboratory Rotations (two-credit course taken for three rotations)	6
IBMS 680 Proposal Preparation	1
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	1
All Ph.D. students are required to take at least two elective courses for a minimum of five credit hours. Electives include PATH 670 and courses at the 500 level or above in ANAT,	5

BIOC, BIOL, BIOS, HGEN, MICR, NEUS, PHTX and PHIS excluding laboratory courses, courses specifically for professional programs (e.g. HGEN 600 Clinical Genetics), directed research, independent study, seminar or current topic courses, BNFO 621, MICR 608 and MICR 609.

Additional elective courses and directed research

Additional elective courses and HGEN 697 Directed Research in Genetics (1-15 variable credit hours) are taken to reach the required minimum of 86 credit hours.

Total graduate credit hours required (minimum)

86

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on doctoral programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.

Human Genetics, Doctor of Philosophy (Ph.D.)/Genetic Counseling, Master of Science (M.S.) [dual degree]

Program accreditation

Accreditation Council of Genetic Counseling

Graduate program director

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John M. Quillin, Ph.D.

Director, dual degree program

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(804) 628-1925

Program website: gen.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Genetic Counseling, Master of Science (M.S.)

Human Genetics, Doctor of Philosophy (Ph.D.)

Human Genetics, Doctor of Philosophy (Ph.D.) with a concentration in

quantitative human genetics

Human Genetics, Master of Science (M.S.)

Human Genetics, Master of Science (M.S.) with a concentration in molecular

biology and genetics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Semester(s)	Deadline	
of entry:	dates:	Test requirements:
Fall	Jan 15	GRE within five years of application (MCAT or DAT is not acceptable in
		2

Special requirements: Applications for the program must be submitted to the Biomedical Sciences Doctoral Portal – School of Medicine – Ph.D. selected from the drop-down menu of programs on the VCU online application form. The dual degree box on the application must also be checked.

International applicants must score 100 or greater on the TOEFL.

It is recommended that all prerequisite courses have been completed within 10 years of application.

Applicants must meet all general admission requirements of the VCU Graduate School. In order to be admitted to this dual-degree program, an applicant must apply to and be accepted into both the M.S. and the Ph.D. programs.

Human Genetics, Doctor of Philosophy

Successful applicants will typically have the following credentials:

- A baccalaureate degree or its equivalent at the time of enrollment, with an undergraduate GPA of 3.5
- 2. Current GRE scores (taken within the past five years), with scores at the 75th percentile or greater preferred
- TOEFL scores of 600 (pBT), 250 (cBT) or 100 (iBT) for individuals for whom English is a second language; or 6.5 on the IELTS (To report GRE or TOEFL score, use VCU Code 5570.)
- 4. Personal statements, which should include: long-term career goals to assess reasons behind the candidate's application; how a Ph.D. in biomedical science helps achieve those goals; the factors motivating a career in research; research experience, including dates, places and duration
- Three letters of recommendation that speak to the scientific competency and experience of the applicant

 The equivalent of two semesters of general chemistry, two semesters of organic chemistry and two semesters of upper-level biology courses (e.g. cell biology, molecular biology, biochemistry, genetics, neuroscience, physiology, biophysics, etc.)

The Department of Human and Molecular Genetics offers a comprehensive program in graduate study leading to a Doctor of Philosophy in Human Genetics. The program includes the completion of an original research project under the supervision of a faculty adviser and a background/foundation of courses that prepare students for research-oriented careers in the rapidly expanding field of human genetics. Major areas of study available to Ph.D. students in the program include clinical and molecular cytogenetics, molecular genetics, developmental genetics, cancer genetics, behavior genetics, population and quantitative genetics, genetic epidemiology, clinical genetics and genetic counseling. Once core course work requirements have been completed, the student's course plan is tailored to meet individual needs with regard to the area of research focus. A concentration in quantitative human genetics is available for those planning a career in this area. For more detailed information on the program visit gen.vcu.edu/graduate-programs/phd-in-human-genetics.

Genetic Counseling, Master of Science (M.S.)

Applicants should have successfully completed undergraduate training and hold a baccalaureate degree. Prerequisites for admission include six credit hours each of biology, chemistry and behavioral science (psychology, anthropology, sociology, religion and philosophy) and three credit hours each of biochemistry, statistics and genetics. Students accepted to the program are generally drawn from applicants with an undergraduate minimum grade point average of 3.0 (on a 4.0 scale or equivalent), with an average GPA of 3.3 to 3.5 for matriculating students. The Graduate Record Examination is required for admission; VCU does not substitute with the MCAT. Matriculating students generally have GRE verbal scores at or above 153, quantitative scores at or above 144 and a performance above a score of 3.5 on the analytical section. Applicants holding an undergraduate degree from foreign institutions must display an acceptable level of English proficiency by achieving a score of 250 on the computer-based TOEFL examination or 600 on the written version. (The program participates in the Association of Genetic Counseling Program Directors program match. Please see the National Society of Genetic Counselors website for information for prospective students at nsgc.org/p/ cm/ld/fid=44#accept.)

Additionally, successful applicants often have experience with shadowing genetic counselors and medical geneticists, interviewing genetic counselors and exposure to individuals with physical and cognitive disabilities. Exposure to crises hotlines, support groups and community activities related to individuals with disability and genetic conditions is also helpful.

In the last five certification cycles (2007 to 2012) VCU graduates have an 86 percent pass rate on the American Board of Genetic Counseling/Accreditation Council of Genetic Counseling national certification examination.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

Provide training in human and molecular genetics and competency in genetic counseling

The program is designed to provide students with the skills required to advance to positions as researchers and trainers in a broad spectrum of positions in human and molecular genetics. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter in human and molecular genetics and an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation in this discipline. The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified. In addition, the program will develop skills in the various means of communicating both the core of human and molecular genetics knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.

Eligibility for certification by the American Board of Genetic Counseling

To prepare individuals for careers in genetic counseling and human genetics, successful candidates will demonstrate competency in all four genetic counseling domains: I – communication skills, II – critical thinking skills, III – interpersonal, counseling and psychosocial assessment skills and IV – professional ethics and values

The Department of Human and Molecular Genetics offers training that combines preparation for a career as a genetic counselor with research-based doctoral training in a coordinated program that integrates the complementary aspects of these two degree categories. In order to be admitted to this dual-degree program, an applicant must be accepted into both the M.S. and Ph.D. programs.

Student learning outcomes

- Oral communication skills: The candidate will demonstrate the achievement
 of an appropriate level of oral communication skills with respect to the
 content, organization, logical flow, presentation and appropriate use of
 language incorporating the use of visual aids, as measured by rubric. This is
 also achieved by evaluations of clinical rotations, both written and verbal,
 that are based on the competencies established by the American Board of
 Genetic Counseling and the scope of practice as set forth by the National
 Society of Genetic Counselors.
- Written communication skills: The candidate will demonstrate the
 achievement of an appropriate level of written communication skill with
 respect to grammar, syntax, spelling and use of vocabulary to effectively
 present information including the use of figures, tables and citations as
 measured by rubric.
- Experimental design: The candidate will demonstrate the achievement of an
 appropriate level of competence in the ability to appraise, modify and/or
 create, and implement experimental protocols and to design and develop
 experiments as measured by rubric.
- 4. Problem-solving skills: The candidate will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in research in human and molecular genetics, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 5. Integrated knowledge of human and molecular genetics: The candidate will demonstrate an appropriate level of knowledge of the current elements of human and molecular genetics as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications as measured by rubric.
- 6. Competency in practice: The candidate should demonstrate development of competency in the responsible practice of genetic counseling. This will be assessed in the clinical setting by certified genetic counselors and medical geneticists. The assessment is based upon the clinical competencies established by the American Board of Genetic Counseling. This competency is documented with written and oral evaluations at the completion of each of the seven clinical rotations by the rotation supervisor.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, the Ph.D. degree requires at least three years of study for students entering with a baccalaureate degree and must be completed within eight years. Students in the dual-degree program must complete a minimum of 152.5 graduate credit hours.

The training programs in human and molecular genetics are intended to set the tone for a career and lifelong learning in human and molecular genetics by developing the student's knowledge of the field and skills in writing, laboratory techniques, critical thinking, data interpretation, study design, literature research and review, and integration of data from multiple disciplines while fostering the student's development as an independent researcher, laboratory director or teacher. These programs also seek to provide students with a core foundation of knowledge that will equip them to carry out translational research and for later work leading to certification by the American Board of Medical Genetics.

Students working toward the Ph.D. degree in Human Genetics pass through two stages of graduate study. The first stage consists primarily of course work recommended by the department and the student's graduate committee; the second stage consists of original research leading to the doctoral dissertation. Ph.D. students are expected to complete the required course work within four semesters and one summer, and they are intended to set the tone of a lifelong research career. In order to be considered in good academic standing, a student must maintain a 3.0 grade point average. The focus then shifts to the student's development as an independent researcher with emphasis being placed upon the development and execution of an original research project leading to the doctoral dissertation.

After the second year of study, students will take the Ph.D. candidacy examination. This exam comprises two parts, a departmental comprehensive examination and a written NIH-style application with an oral examination administered by the student's graduate committee. Upon successfully completing the departmental comprehensive and the oral comprehensive exam, the student is admitted to Ph.D. candidacy. At this point, students are expected to develop and conduct dissertation research projects and to write and defend their dissertations describing their dissertation research.

Curriculum requirements

Courses	Credit hours
ANAT 612 Human Embryology [G]	2
ANAT 620 Scientific Writing and Grantsmanship [P] or	2 or
HGEN 614 Pathogenesis of Human Genetic Disease (will also	3
fulfill this requirement)	
BIOC/MICR 503 Biochemistry, Cell and Molecular Biology [P]	5
BIOC/MICR 504 Biochemistry, Cell and Molecular Biology [P]	5
or CCTR 703 Statistics for Genetic Studies II [P]	or 3
BIOS/STAT 543 Statistical Methods I [P] or CCTR 702	3
Statistics for Genetic Studies I [P]	
CLED 602 Techniques in Counseling [G]	3
HGEN 501/BIOL 530 Human Genetics [P, G]	3
HGEN 502 Advanced Human Genetics [P, G]	3
HGEN 510 Classic Papers in Human Genetics [P, G]	1
HGEN 525 Practice of Genetic Counseling	3
HGEN 526 Practice of Genetic Counseling [G]	3
HGEN 527 Medical Genetics [G]	3
HGEN 528 Medical Genetics [G]	3
HGEN 600 Clinical Genetics [G] (three credit hours taken a minimum of five semesters)	15
HGEN 610 Current Literature in Human Molecular Genetics [P] (one-credit course taken a minimum of nine semesters)	9
HGEN 614 Pathogenesis of Human Genetic Disease [P] or HGEN 603 Mathematical and Statistical Genetics [P]	3
HGEN 622 Cancer Genetic Counseling [G]	3
HGEN 690 Genetics Research Seminar [P] (one-credit course taken a minimum of 10 semesters)	10
HGEN 697 Directed Research in Genetics [P, G]	63
IBMS 600 Laboratory Safety [P]	1
IBMS 610 Laboratory Opportunities [P]	.5

IBMS 620 Laboratory/Clinical Rotations (two-credit course taken three times)	6
IBMS 680 Proposal Preparation	1
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of	1
Research [P, G] PATH 521 Laboratory Techniques in Diagnostic Pathology [G] This course is divided into two distinct sections — a cytogenetics section and a molecular genetics section. The intent of this rotation is for students to learn the behind-the-scenes wet lab activities that lead to genetic information relevant for clinical counseling. Some dual-degree students may choose a thesis project that specializes in wet lab research, either cytogenetics or molecular genetics. With permission from the adviser and the genetic counseling program director, part or all of this rotation may not be required.	3

Electives (optional) (0-3)

No electives are required for the dual-degree program. If the student chooses to take electives, however, suggested electives include IDDS 602, PATH 670 and courses at the 500 level or above in ANAT, BIOC, BNFO, BIOL, BIOS, HGEN, MICR, NEUS, PHTX and PHIS, excluding laboratory courses, courses specifically for professional programs, directed research, independent study, seminar or current topic courses, BNFO 621, MICR 608, and MICR 609.

Total graduate credit hours required (minimum) 152.5

Once students have completed all didactic course work, they will continue to register as follows for all subsequent semesters unless otherwise advised by the program director:

HGEN 600 Clinical Genetics [G]	3
HGEN 610 Current Literature in Human Molecular Genetics [P]	1
HGEN 690 Genetics Research Seminar [P, G]	1
HGEN 697 Directed Research in Genetics [P, G]	10

[G] = M.S. in Genetic Counseling requirement [P] = Ph.D. in Human Genetics requirement

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113; information on doctoral programs can be found at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.

Human Genetics, Master of Science (M.S.)

Graduate program director

Rita Shiang, Ph.D. Associate professor, Department of Human and Molecular Genetics rshiang@vcu.edu (804) 628-4083

Additional contact

Michael S. Grotewiel, Ph.D. Director of admissions msgrotewiel@vcu.edu (804) 628-4086

Program website: gen.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Human Genetics, Doctor of Philosophy (Ph.D.)

Human Genetics, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Human Genetics, Master of Science (M.S.) with a concentration in molecular biology and genetics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Human Genetics, Master of Science (M.S.)				
Degree:	Semester(s)	Deadline	Test	
	of entry:	dates:	requirements:	
M.S.	Fall	May 1	GRE, MCAT or DAT	
Special requirements: International applicants must score 100 or greater on the TOEFL.				

In addition to the general admission requirements of the VCU Graduate School, applicants wishing to specialize in human genetics should have courses in biology, chemistry through organic chemistry, genetics and mathematics through calculus.

Research-intensive, non-thesis curriculum for medical students

Individuals who are participants in Doctor of Medicine program at VCU may be eligible for enrollment in research-intensive, non-thesis study in the program. Please contact the graduate program director for additional information.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate

Credit hours

5

programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The goal of the master's program in human genetics is to provide training in human and molecular genetics. The program is designed to provide students with the skills required to advance to positions as researchers and trainers in a broad spectrum of positions in human and molecular genetics. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter in human and molecular genetics and an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation in this discipline. The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified. In addition, students will develop skills in the various means of communicating both the core of human and molecular genetics knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.

Student learning outcomes

- Oral communication skills: Degree candidates will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric.
- Written communication skills: Degree candidates will demonstrate the
 achievement of an appropriate level of written communication skill with
 respect to grammar, syntax, spelling and use of vocabulary to effectively
 present information including the use of figures, tables and citations as
 measured by rubric.
- Experimental design: Degree candidates will demonstrate the achievement of
 an appropriate level of competence in the ability to appraise, modify and/or
 create, and implement experimental protocols and to design and develop
 experiments as measured by rubric.
- 4. Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in research in human and molecular genetics, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 5. Integrated knowledge of human and molecular genetics: Degree candidates will demonstrate an appropriate level of knowledge of the current elements of human and molecular genetics as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications as measured by rubric.

Degree requirements

The Department of Human and Molecular Genetics offers a comprehensive program in graduate study leading to a Master of Science in Human Genetics. The program includes the completion of an original research project under the supervision of a faculty adviser and a background/foundation of courses that prepare students for research-oriented careers in the rapidly expanding field of human genetics. Major areas of study available to master's students in the program include clinical and molecular cytogenetics, molecular genetics, developmental

genetics, cancer genetics, behavior genetics, population and quantitative genetics, genetic epidemiology, clinical genetics and genetic counseling.

In addition to the general VCU Graduate School graduation requirements, the M.S. degree requires at least two years of full-time study for students entering with a B.S. or B.A. degree and must be completed within six years. Students must complete a minimum of 59 graduate credit hours. Students may be required to take an additional six hours of directed research after the second spring semester if needed.

Upon completing their thesis research, master's students must report their results in a thesis that is prepared in an acceptable form and style as detailed by the university Graduate School. A final oral examination is scheduled after the student's thesis has been approved by the student's advisory committee. This examination includes the subject matter of course work the student has completed as well as the thesis. It is administered by the student's graduate advisory committee who will vote on the student's performance in addition to rating them with regard to the rubrics defined by the School of Medicine.

Curriculum requirements

Courses

Electives

Courses	Ci can noui
Required courses	32 (or 34)
BIOC/MICR 503 Biochemistry, Cell and Molecular Biolo	gy 5
BIOC/MICR 504 Biochemistry, Cell and Molecular Biolo BIOS/STAT 544 Statistical Methods II	gy or 5 or 3
BIOS/STAT 543 Statistical Methods I	3
HGEN 501/BIOL 530 Human Genetics	3
HGEN 502 Advanced Human Genetics	3
HGEN 510 Classic Papers in Human Genetics	1
HGEN 605 Experimental Methods in Human Genetics*	5
(variable credit-hour course to be taken twice for a minimutotal of five credits)	um
HGEN 606 Introduction to Clinical Genetics	1
HGEN 610 Current Literature in Human Molecular Genet (one-credit course to be taken three times)	ics 3
HGEN 690 Genetics Research Seminar	4
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	. 1

All master's students are required to take at least two elective courses. Electives include PATH 670 and courses at the 500 level or above in ANAT, BIOC, BNFO, BIOL, BIOS, HGEN, MICR, NEUS, PHTX and PHIS excluding laboratory courses, courses specifically for professional programs, directed research, independent study, seminar or current topic courses and excluding BNFO 621, MICR 608 and MICR 609.

Directed research

HGEN 697 Directed Research in Genetics (If needed, six additional credit hours will be taken after the second spring semester)

22 (minimum)

Total graduate credit hours required (minimum) 59 (or 61)

*For HGEN 605, the student and faculty member will design a project that can reasonably be completed in 12 weeks. The student will spend approximately 12 weeks in that lab for a minimum of eight hours a week. The student's performance in the laboratory will serve as the basis for the grade that is received for this

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program

websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Human Genetics, Master of Science (M.S.) with a concentration in molecular biology and genetics

Graduate program director

Gail E. Christie, Ph.D.

Professor, Department of Microbiology and Immunology christie@vcu.edu

(804) 828-9093

Program website: vcu.edu/mbg

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Genetic Counseling, Master of Science (M.S.) Human Genetics, Doctor of Philosophy (Ph.D.) Human Genetics, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Human Genetics	cs, Master of Science (M	.S.) with a concentration	in molecular biology
Degree: M.S.	Semester(s) of entry: Fall	Deadline dates: Deadline date rolling, preference given to applications received by Jan 17	native language is not

Special requirements:

Applications for the program should be submitted to Molecular Biology and Genetics – M.S. selected from the drop-down menu of programs of the VCU online graduate application form. The degree awarded will be a Master of Science in Human Genetics.

In addition to the general admission requirements of the VCU Graduate School, applicants must have earned or expect to earn a baccalaureate or equivalent degree, and must have demonstrated a superior knowledge of biology, chemistry, physics and mathematics. Laboratory experience is also strongly recommended. The Graduate Record Examination is required, as are letters of recommendation and a letter summarizing the applicant's goals. International applicants who do not use English as their native language must take the Test of English as a Foreign Language examination.

Research-intensive, non-thesis curriculum for medical students

Individuals who are participants in Doctor of Medicine program at VCU may be eligible for enrollment in research-intensive, non-thesis study in the program. Please contact the graduate program director for additional information.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The molecular biology and genetics curriculum is an integrated interdisciplinary program of study that builds on the graduate programs of participating departments in the School of Medicine. The master's curriculum is designed to be an intensive course of study that will provide students with the skills required to advance to research-oriented careers in biotechnology or provide the foundation for further graduate study toward a Ph.D.

It is expected that the program should be completed in approximately two to twoand-one-half years.

- The curriculum includes core, specialization and elective courses. Electives drawn from various departments allow individual specialization.
- 2. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience, an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation. The program relates this framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified.

- In addition, the program will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.
- The final three semesters include a research project conducted under the guidance of a selected faculty mentor and culminates in the presentation and defense of a master's thesis.

Participating faculty are associated not only with programs and departments within the School of Medicine, but also with the VCU Massey Cancer Center, the Philips Institute for Oral and Craniofacial Molecular Biology (School of Dentistry), the Institute of Structural Biology and Drug Discovery (School of Pharmacy) and the VCU Center for the Study of Biological Complexity (VCU Life Sciences).

The interdisciplinary approach to the solution of biological problems provided by this training is designed to develop in students the flexibility and problem-solving skills necessary for success in a variety of scientific career opportunities or further graduate study.

Student learning outcomes

- Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 2. General knowledge of sciences: Degree candidates will demonstrate an appropriate level of knowledge of the current elements of the biosciences as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications, as measured by rubric.
- Communication skills: Degree candidates will demonstrate that an appropriate level of oral, written and visual communication skills have been acquired.
 - a. Oral communication skills: Degree candidates will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric.
 - b. Written communication skills: Degree candidates will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.
- Experimental design: Degree candidates will demonstrate the achievement of
 an appropriate level of competence in the ability to appraise, modify and/or
 create, and implement experimental protocols and to design and develop
 experiments as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, the interdisciplinary master's curriculum in molecular biology and genetics requires a minimum of 48 credit hours, at least half of which must be course work restricted to graduate students. The curriculum includes 19 credit hours of required core course work and 29 additional credit hours of required course work, directed research and research seminar course work, and additional approved course work, as listed below. M.S. candidates must pass a final oral examination. A written thesis approved by the student's graduate advisory committee completes the requirements leading to the M.S. degree.

Curriculum requirements

Courses	Credit
Courses	hours

Required core courses 19

BIOC 530 Biochemistry, Cell and Molecular Biology Module 1: Protein	2
Structure and Function*	
BIOC 531 Biochemistry, Cell and Molecular Biology Module 2: Basic	1
Metabolism*	
BIOC 532 Biochemistry, Cell and Molecular Biology Module 3: Central	1
Dogma of Molecular Biology*	
BIOC 533 Biochemistry, Cell and Molecular Biology Module 4: Lipids/	1
Membranes and Bioenergetics*	
IBMS 600 Laboratory Safety	1
IBMS 620 Laboratory/Clinical Rotations; sections 004 and 005** (two-	4
credit course taken twice)	
MICR/BIOC 504 Biochemistry, Cell and Molecular Biology	5
MICR 607 Techniques in Molecular Biology and Genetics	2
MICR 693 Topics in Molecular Biology and Genetics (MBG journal	1
club, must take at least once)	
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific	1
Conduct or OVPR 603 Responsible Conduct of Research	
•	

Other required course work 29 enetics 3

HGEN 501 Human Genetics

Directed research and seminar

BIOC 697 Directed Research in Biochemistry or MICR 697 Directed variable Research in Microbiology (Note: Students must take a minimum of one credit hour of directed research every semester of enrollment in the program after the first year of study.)

MICR 690 Microbiology Research Seminar (section 002, MBG; one-credit course) (Note: Students must take a minimum of one credit hour of research seminar course work every fall and spring semester of enrollment in the program.)

Students may take additional course work with the approval of their graduate program directors.

Total graduate credit hours required (minimum) 48

- * This requirement may also be satisfied with BIOC 503 Biochemistry, Cell and Molecular Biology (five credit hours).
- ** This requirement may also be satisfied, under certain circumstances, with MICR 608 or MICR 609 Introduction to Microbiology and Immunology Research (three credit hours; section 002). Consult with the program director.

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

M.S. students in the MBG curriculum must prepare a formal written research plan and make an oral presentation of their thesis research proposals and progress reports to their graduate advisory committees prior to the beginning of the second year of residency. The student's knowledge in the area of the proposed research, current research accomplishments and the feasibility of the proposed research project will be evaluated by the GAC. Successful completion of this review is required for continuance in the program and constitutes admission to candidacy.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Medical Physics, Doctor of Philosophy (Ph.D.)

Program accreditation

Commission on Accreditation of Medical Physics Educational Programs

Graduate program director

Geoffrey D. Hugo, Ph.D. Assistant professor, Department of Radiation Oncology gdhugo@vcu.edu (804) 628-7780

Additional contact

Shana Ryman Medical physics education coordinator sryman@vcu.edu (804) 628-7780

Program website: medicalphysics.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Medical Physics, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Medical Physics, Doctor of Philosophy (Ph.D.)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall	Jan 15	GRE

In addition to the general admission requirements of the VCU Graduate School and the School of Medicine, students are expected to satisfy the following minimum standards for admission.

- Students must have a minimum of 30 credit hours in undergraduate physics, physical science or engineering, of which at least 18 credit hours must be at the upper level. Background courses should include calculus one and two, linear algebra, differential equations, modern physics, and electricity and magnetism physics.
- 2. Students must submit satisfactory GRE scores.

3. Applicants must present a minimum GPA of 3.0 on a 4-point scale for the undergraduate degree or most recently completed graduate degree.

Provisional admission may be granted where deficiencies exist. These deficiencies must be removed by the end of the first year of residence, or its part-time equivalent, when the student's application will be re-examined. Courses that are designed to remove deficiencies will not be accepted for credit hours toward the graduate degree.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The Ph.D. in Medical Physics offers students course work and research training in physics as it is applied to the diagnosis and treatment of human diseases. The mission of the doctoral program is to serve the commonwealth of Virginia and the nation by helping to meet the demand for competent medical physicists in both the health care delivery and biomedical research settings. The program will prepare students for careers as independent investigators in the field of medical physics and jointly for careers in university departments, research institutes, laboratories and hospitals as trainee clinical medical physicists. Research areas include molecular imaging, functional imaging using PET and NMR, cone-beam CT image reconstruction, deformable image registration, intensity-modulated radiation therapy, radiation therapy dose calculations, 4D radiation therapy and brachytherapy dose calculations.

Professional competency: To develop professional competency in medical physics by providing a framework in which students progressively develop a mastery of the current state of medical physics and an ability to synthesize this information and apply it in research and clinical settings. Additionally, the program aims to develop skills in the various means of communicating both the core of medical physics knowledge and expression of experimental design, results and interpretation to a variety of potential audiences.

Scientific competency: To develop scientific competency in medical physics by providing a framework by which candidates develop skills to design, conduct and implement theoretical and clinical research which answers identified questions. The research focus may lead to new and/or improved applications of physics for diagnosis and treatment of disease. Candidate research will focus on medical imaging, radiation therapy, radiation metrology or other burgeoning areas of investigation. In broad terms, candidate research will be directed toward advancing "minimally invasive medicine" through applications of ionizing and non-ionizing radiation.

Student learning outcomes

 Communication skills: The candidate should demonstrate that an appropriate level of oral, written and visual communication skills have been acquired. The candidate will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric. The candidate will demonstrate the

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achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.

- 2. Experimental design: The candidate should demonstrate an appropriate level of skill in the theoretical and technical design of experimental procedures and the technical conduct of experimentation related to his or her research. This includes demonstration of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments as measured by rubric.
- 3. Knowledge of medical physics literature: The candidate should demonstrate a general knowledge of medical physics literature and a more detailed knowledge of his or her area of research, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications as measured by rubric.
- 4. Problem-solving: The candidate should demonstrate an appropriate level of skill in the identification of meaningful medical physics research problems, including the ability to defend said identifications, and the design and implementation of appropriate problem-solving methods as measured by rubric

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students entering the program with an undergraduate degree are required to earn a minimum of 30 credit hours in didactic or laboratory course work. Students entering with a master's degree in medical physics, physics or an appropriate related field are required to earn a minimum of 18 credit hours. In addition to course work, the Ph.D. requires a minimum of 12 credit hours in MEDP 697 Directed Research. At least half of the course work must be earned at the 600 level or higher. Detailed degree requirements are listed below and in the medical physics graduate handbook.

All new Ph.D. students entering the program will be assigned an adviser. After successful completion of the written comprehensive exam, students and advisers will develop a graduate dissertation committee. The committee will direct the students in their research and subsequent course selection. Advisers will report once a semester to the program director on the academic progress of their students and will administer the oral candidacy and dissertation defense examinations.

The student is required to complete written and oral examinations to be admitted as a Ph.D. candidate. The written comprehensive examination covers core knowledge and applications in medical physics course work, as well as basic concepts in physics, chemistry and biology. The oral examination, administered by the student's graduate dissertation committee, is based upon a written prospectus describing the proposed dissertation research project. Examiners evaluate the adequacy of the proposed project, the student's level of understanding of the project and the likelihood that the dissertation can be completed successfully.

After being approved for degree candidacy, the student must conduct substantial original investigation under the supervision of the advisers and must prepare a dissertation reporting the results of the research in the context of existing scientific knowledge. After the dissertation has been completed and unanimously accepted for defense by the graduate dissertation committee, the candidate will appear before the committee for an oral defense. The oral dissertation defense examines the candidate's research, dissertation documentation and underlying fundamental knowledge. Upon successful completion of the defense and dissertation, the student may apply for graduation with a Ph.D. in Medical Physics.

Curriculum requirements

Courses	Credit hours
Recommended core courses	26
MEDP 561 Topographical Anatomy and Physiology	1
MEDP 563 Radiological Physics and Radiation Dosimetry	4
MEDP 567 Introduction to Radiation Therapy Physics	3
MEDP 601 Health Physics	3
MEDP 630 Radiobiology for the Medical Physicist	3
MEDP 633 Advanced Radiation Therapy Physics	4
MEDP 635 Physics of CT	2
MEDP 636 Physics of MRI	3

MEDP 637 Physics of Nuclear Medicine	2
MEDP 689 Medical Physics Literature Review	1
Recommended electives	4
BIOS/STAT 543 Statistical Methods I	3
BIOS/STAT 544 Statistical Methods II	3
MEDP 682 Clinical Rotations in Medical Physics (variable credits, may be repeated)	3-6
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of	1
Research	
STAT 541 Applied Statistics for Engineers and Scientists	3
Directed research	12
MEDP 697 Directed Research (1-15 variable credit hours)	12 (minimum)

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study, or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

The medical physics graduate program student handbook is available at medicalphysics.vcu.edu/handbook/2014-2015.StudentHandbook.pdf.

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on doctoral programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.

Medical Physics, Master of Science (M.S.)

Program accreditation

Commission on Accreditation of Medical Physics Educational Programs

Graduate program director

Geoffrey D. Hugo, Ph.D.

Associate professor, Department of Radiation Oncology gdhugo@vcu.edu

(804) 628-7780

Additional contact

Shana Ryman

Medical physics education coordinator

sryman@vcu.edu (804) 628-7780

Program website: medicalphysics.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Medical Physics, Doctor of Philosophy (Ph.D.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Medical Physics, Master of Science (M.S.)				
Degree:	Semester(s)	Deadline	Test	
	of entry:	dates:	requirements:	
M.S.	Fall	Jan 15	GRE	

In addition to the general admission requirements of the VCU Graduate School and the School of Medicine, students are expected to satisfy the following minimum standards for admission.

- Students must have a minimum of 30 credit hours in undergraduate physics, physical science or engineering, of which at least 18 credit hours must be at the upper level. Background courses should include calculus one and two, linear algebra, differential equations, modern physics, and electricity and magnetism physics.
- 2. Students must submit satisfactory GRE scores.
- 3. Applicants must present a minimum GPA of 3.0 on a 4-point scale for the undergraduate degree or most recently completed graduate degree.

Provisional admission may be granted where deficiencies exist. These deficiencies must be removed by the end of the first year of residence, or its part-time equivalent, when the student's application will be re-examined. Courses that are designed to remove deficiencies will not be accepted for credit hours toward the graduate degree.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The Master of Science in Medical Physics offers students course work and practical clinical training in physics as it is applied to the diagnosis and treatment of human diseases. The mission of the master's program is to serve the commonwealth of Virginia and the nation by helping to meet the demand for competent medical physicists in the health care delivery setting. The program will prepare students for careers as qualified and independent clinical medical physicists. Required course work provides theoretical and practical training in radiation dosimetry, radiation biology, radiation therapy, imaging and health physics.

Professional competency: To develop professional competency in medical physics by providing a framework in which students progressively develop mastery of the current state of medical physics and an ability to synthesize this information and apply it in a clinical setting. Additionally, students in the program will develop skills in the various means of communicating the core of medical physics knowledge and clinical applications of that knowledge to a variety of potential audiences.

Clinical competency: To develop clinically competent medical physics graduates by providing a framework in which students progress from didactic knowledge to clinical knowledge and demonstrated application of clinical medical physics principles, practices and procedures.

Student learning outcomes

- Clinical performance: The candidate should demonstrate an appropriate level
 of skill in the theoretical, practical and technical conduct of medical physics
 in the clinical setting. This includes demonstration of an appropriate level of
 competence in the ability to:
 - a. Design and quality assure radiation therapy treatment plans for both brachytherapy and external beam radiation therapy
 - b. Quality assure radiation therapy delivery devices
 - c. Quality assure radiation therapy treatment charts
 - d. Perform calibration and/or beam delivery commissioning measurements as measured by instructor evaluation in compliance with accepted clinical standards
- 2. Communication skills: The candidate should demonstrate that an appropriate level of oral, written and visual communication skills have been acquired. The candidate will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by course work and performance on the written comprehensive examination. The candidate will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling, chart notation and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by course work and performance on the written comprehensive examination.
- 3. Medical physics knowledge base: The candidate should demonstrate satisfactory knowledge of the base of scientific information required to practice clinical medical physics. This includes general knowledge of medical physics scientific materials, clinical policies and procedures, and translational scientific literature. The student should demonstrate the ability to evaluate and integrate such knowledge into the solution of clinical problems as measured by course work and performance on the written comprehensive examination.
- 4. Problem-solving: The candidate should demonstrate an appropriate level of skill in the identification of clinical medical physics problems and the design and implementation of appropriate problem-solving methods and solutions as measured by course work, annual review and performance on the written comprehensive examination.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students entering the program with an undergraduate degree are required to earn a minimum of 30 credit hours in didactic or laboratory course work. At least 15 credit hours must be earned at the 600 level or higher. Detailed degree requirements are listed in the medical physics graduate handbook.

Students are required to complete 20 credit hours of core graduate medical physics course work (MEDP 563, 567, 601, 630, 635, 636 and 637), one credit hour of MEDP 689 and six credit hours of MEDP 682. Additionally, students also must demonstrate competence in anatomy through completion of an undergraduate or graduate anatomy course approved by the medical physics graduate curriculum committee.

Following completion of course work, students will be required to pass a comprehensive examination administered by the medical physics comprehensive examination committee. The comprehensive examination will cover materials from the core medical physics courses and clinical rotations.

Curriculum requirements

Courses	Credit hours
MEDP 561 Topographical Anatomy and Physiology	1
MEDP 563 Radiological Physics and Radiation Dosimetry	4
MEDP 567 Introduction to Radiation Therapy Physics	3
MEDP 601 Health Physics	3
MEDP 630 Radiobiology for the Medical Physicist	3
MEDP 635 Physics of CT	2
MEDP 636 Physics of MRI	3
MEDP 637 Physics of Nuclear Medicine	2
MEDP 682 Clinical Rotations	6
MEDP 689 Medical Physics Literature Review	1
Recommended electives	2
MEDP 633 Advanced Radiation Therapy Physics	4
MEDP 697 Directed Research	variable
OVPR 602 Responsible Scientific Conduct	1
STAT 541 Applied Statistics for Engineers and Scientists	3
STAT/BIOS 543 Statistical Methods I	3
STAT/BIOS 544 Statistical Methods II	3
Total graduate course credit hours required (minimum)	30

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study, or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

The medical physics graduate program student handbook is available at medicalphysics.vcu.edu/handbook/2014-2015.StudentHandbook.pdf.

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Microbiology and Immunology, Doctor of Philosophy (Ph.D.)

Graduate program director

Cynthia Nau Cornelissen, Ph.D.

Professor, Department of Microbiology and Immunology cncornel@vcu.edu

(804) 827-1754

Additional contact

Martha L. VanMeter Office services specialist mlvanmeter@vcu.edu (804) 828-9728

Program website: vcu.edu/micro

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Microbiology and Immunology, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Microbiology and Immunology, Master of Science (M.S.)

Microbiology and Immunology, Master of Science (M.S.) with a concentration in molecular biology and genetics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Microbiology and Immunology, Doctor of Philosophy (Ph.D.)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Ph.D.	Fall	Applications received prior to Jan 15 given priority consideration	

Special requirements: MCAT acceptable in lieu of GRE for combined professional/academic degree programs

Applications for the program must be submitted to the Biomedical Sciences Doctoral Portal – School of Medicine – Ph.D. selected from the drop-down menu of programs on the VCU online application form.

In addition to the general admission requirements of the VCU Graduate School, successful applicants will typically have the following credentials:

- A baccalaureate degree or its equivalent at the time of enrollment, with an undergraduate GPA of 3.5
- GRE scores greater than 153 for quantitative, 156 for verbal (or combined 1250 on previous scale) and 4.0 analytical scores
- TOEFL scores of 600 (pBT), 250 (cBT) or 100 (iBT) for individuals for whom English is a second language; or 6.5 on the IELTS (To report GRE or TOEFL score, use VCU Code 5570.)

- 4. Personal statements, which should include: long-term career goals to assess reasons behind the candidate's application; how a Ph.D. in biomedical science helps achieve those goals; the factors motivating a career in research; research experience, including dates, places and duration
- Three letters of recommendation that speak to the scientific competency and experience of the applicant
- The equivalent of two semesters of general chemistry, two semesters of organic chemistry and two semesters of upper-level biology courses (e.g. cell biology, molecular biology, biochemistry, genetics, neuroscience, physiology, biophysics, etc.)

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The graduate programs of the Department of Microbiology and Immunology in the School of Medicine include degrees offered at the master's and doctoral levels. These educational programs have as their mission the preparation of individuals for a variety of career objectives in microbiology and immunology. The programs incorporate formal instructional activities and, as appropriate, research training, mentored by the members of the faculty. The M.S. program is distinguished by inclusion of the preparation of the individual to function as a laboratory director or scientific investigator.

The Ph.D. program is designed to provide students with the skills required to advance to positions as bioscience researchers and trainers in a broad spectrum of positions. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience, an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation in bioscience. The program relates this framework to the development of the ability to design, implement and interpret experimental approaches that address the questions identified.

The Ph.D. program is also designed to develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences

Student learning outcomes

- Oral communication skills: The candidate will demonstrate the achievement
 of an appropriate level of oral communication skills with respect to the
 content, organization, logical flow, presentation and appropriate use of
 language incorporating the use of visual aids, as measured by rubric.
- Written communication skills: The candidate will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.

- Experimental design: The candidate will demonstrate the achievement of an
 appropriate level of competence in the ability to appraise, modify and/or
 create, and implement experimental protocols and to design and develop
 experiments as measured by rubric.
- 4. Problem-solving skills: The candidate will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 5. General knowledge of science: The candidate should demonstrate a general knowledge of the elements of the sciences as related to molecular/cellular bioscience and a detailed knowledge of his or her area of research, including an appropriate familiarity with the research literature.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students must complete a minimum of 58 graduate credit hours.

The Department of Microbiology and Immunology has an outstanding faculty with diverse research interests that include cell and molecular biology, molecular genetics, molecular pathogenesis, bacteriology, immunology, immunotoxicology, virology, parasitology, mycology and oncology. The goal of the graduate program is to prepare students to become creative problem-solvers and leaders in scientific research. The Ph.D. degree is offered, as well as an M.D./Ph.D. degree for medical students interested in academic or research careers.

The research experience is complemented with excellent course offerings, seminar programs, teaching opportunities, presentations at scientific meetings, writing of a grant application and writing of scientific papers. Graduate students acquire a wide range of research experience in the first year through exposure to a variety of research laboratories and investigators. The student chooses a research adviser, undergoes a written and oral examination and then carries out an original independent research project under the direction of the adviser. The project falls under the review of an advisory committee, and a written dissertation is defended in a final oral examination.

A cumulative GPA of 3.0 (with no more than six credit hours of a C grade) is required to continue in the program.

Curriculum requirements

Courses	Credit hours
Required courses	
BIOC/MICR 504 Biochemistry, Cell and Molecular Biology	5
BIOC 530 Biochemistry, Cell and Molecular Biology Module 1: Protein Structure and Function	2
BIOC 531 Biochemistry, Cell and Molecular Biology Module 2: Basic Metabolism	1
BIOC 532 Biochemistry, Cell and Molecular Biology Module 3: Central Dogma of Molecular Biology	1
BIOC 533 Biochemistry, Cell and Molecular Biology Module 4: Lipids/Membranes and Bioenergetics	1
IBMS 600 Laboratory Safety	1
IBMS 610 Laboratory Opportunities	0.5
IBMS 620 Laboratory Rotations (two-credit course taken for three rotations)	6
IBMS 630 Critical Thinking	1
IBMS 680 Proposal Preparation	1
IBMS 690 Basic Health Sciences Research Seminar	1
MICR 505 Immunobiology	3
MICR 515 Principles of Molecular Microbiology	3
Students must take two of the following three-credit courses:	6
MICR 616 Mechanisms of Viral and Parasite Pathogenesis*,	
MICR 618 Molecular Mechanisms of Bacterial Pathogenesis*,	
MICR 686 Advanced Immunobiology	
MICR 690 Microbiology Research Seminar (one-credit course taken each fall and spring semester)	variable
MICR 692 Current Topics in Molecular Pathogenesis, MICR 693 Topics in Molecular Biology and Genetics or MICR 694	variable

Current Topics in Immunology (a journal club course taken for one semester every year)

OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research

Electives and directed research Students enroll in directed research and additional elective courses from the following list to amass the required minimum of 58 credit hours	variable
MICR 605 Prokaryotic Molecular Genetics	3
MICR 607 Techniques in Molecular Biology and Genetics	2
MICR/BNFO 653 Advanced Molecular Genetics: Bioinformatics	3
MICR 684 Molecular Biology of Cancer*	3
MICR 697 Directed Research in Microbiology (1-15 variable credit hours)	variable

^{*} Offered in alternate years.

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on doctoral programs is

available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.

Microbiology and Immunology, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Graduate program director

Gail E. Christie, Ph.D.

Professor, Department of Microbiology and Immunology christie@vcu.edu (804) 828-9093

Program website: vcu.edu/mbg

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Microbiology and Immunology, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Microbiology and Immunology, Master of Science (M.S.)

Microbiology and Immunology, Master of Science (M.S.) with a concentration in molecular biology and genetics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Microbiology and Immunology, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Degree:	Semester(s)	Deadline Test
	of entry:	dates: requirements:
Ph.D.	Fall	Applications received GRE, MCAT or DAT
		prior to Jan 15 given
		priority consideration

Special requirements: MCAT or DAT acceptable in lieu of GRE for combined professional/academic degree programs

Applications for the program must be submitted to the Biomedical Sciences Doctoral Portal – School of Medicine – Ph.D. selected from the drop-down menu of programs on the VCU online application form.

In addition to the general admission requirements of the VCU Graduate School, successful applicants will typically have the following credentials:

- A baccalaureate degree or its equivalent at the time of enrollment, with an undergraduate GPA of 3.5
- Current GRE scores (taken within the past five years), with scores at the 75th percentile or greater preferred
- TOEFL scores of 600 (pBT), 250 (cBT) or 100 (iBT) for individuals for whom English is a second language; or 6.5 on the IELTS (To report GRE or TOEFL score, use VCU Code 5570.)
- 4. Personal statements, which should include: long-term career goals to assess reasons behind the candidate's application; how a Ph.D. in biomedical science helps achieve those goals; the factors motivating a career in research; research experience, including dates, places and duration
- Three letters of recommendation that speak to the scientific competency and experience of the applicant
- 6. The equivalent of two semesters of general chemistry, two semesters of organic chemistry and two semesters of upper-level biology courses (e.g. cell biology, molecular biology, biochemistry, genetics, neuroscience, physiology, biophysics, etc.)
- 7. Laboratory experience also strongly recommended

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty

of the university through their elected representatives to the University Graduate

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The molecular biology and genetics curriculum is an integrated interdisciplinary program of study that builds on the graduate programs of participating departments in the School of Medicine. The doctoral curriculum is designed to be an intensive course of study that will provide students with the skills required to advance to research-oriented careers in biotechnology.

- The curriculum includes core, specialization and elective courses. Electives drawn from various departments allow individual specialization.
- 2. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience, an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation. The program relates this framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified.
- In addition, the program will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.
- The program centers on a research project conducted under the guidance of a selected faculty mentor and culminates in the presentation and defense of a doctoral dissertation.

Participating faculty are associated not only with programs and departments within the School of Medicine, but also with the VCU Massey Cancer Center, the Philips Institute for Oral and Craniofacial Molecular Biology (School of Dentistry), the Institute of Structural Biology and Drug Discovery (School of Pharmacy) and the VCU Center for the Study of Biological Complexity (VCU Life Sciences).

The interdisciplinary approach to the solution of biological problems provided by this training is designed to develop in students the flexibility and problem-solving skills necessary for success in a variety of scientific career opportunities or further graduate study.

Student learning outcomes

- Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 2. General knowledge of sciences: Degree candidates will demonstrate an appropriate level of knowledge of the current elements of the biosciences as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications, as measured by rubric.
- Communication skills: Degree candidates will demonstrate that an appropriate level of oral, written and visual communication skills have been acquired.
 - Oral communication skills: Degree candidates will demonstrate the achievement of an appropriate level of oral communication skills with

- respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric.
- b. Written communication skills: Degree candidates will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.
- Experimental design: Degree candidates will demonstrate the achievement of
 an appropriate level of competence in the ability to appraise, modify and/or
 create, and implement experimental protocols and to design and develop
 experiments as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students must complete a minimum of 58 graduate credit hours.

During the first year, students pursue research rotations, take formal course work and become familiar with current research topics through seminars, discussion groups and lectures by distinguished scientists. By the end of the first year, students choose a faculty adviser and begin dissertation research. Prior to the beginning of the third year of study, students should successfully pass written and oral candidacy examinations. Following completion of the research project and defense of the doctoral dissertation, graduates are equipped to participate in a broad range of current biomedical research areas.

Credit hours

Curriculum requirements

Courses

Courses	Credit hour
Required courses	variable
BIOC 503-504 Biochemistry, Cell and Molecular Biology	10
BIOC 602 Physical Properties of Macromolecules (modules 1 and 2)	2
IBMS 600 Laboratory Safety	1
IBMS 610 Laboratory Opportunities	0.5
IBMS 620 Laboratory/Clinical Rotations (two-credit course taken for three rotations)	6
IBMS 630 Critical Thinking (or BIOC 691 or HGEN 691 equivalents)	1
IBMS 680 Proposal Preparation	1
IBMS 690 Basic Health Sciences Research Seminar (first year only)	1
MICR 605 Prokaryotic Molecular Genetics	3
MICR 607 Techniques in Molecular Biology and Genetics	2
MICR 690 Microbiology Research Seminar (section 002 – MBG; one-credit course to be taken every semester beginning in the second year)	variable
MICR 693 Topics in Molecular Biology and Genetics (MBG journal club - must take at least twice)	2
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	1
A course in eukaryotic molecular biology from the following list of approved options (or an approved alternative):	3
BIOC 605 Molecular Biology	3
HGEN 602 Genetic Models of Disease	3
HGEN 614 Pathogenesis of Human Genetic Disease	3
IBMS 635 Cellular Signaling	3
MICR 684 Molecular Biology of Cancer	3
PATH 670 Experimental Approaches to Tumor Biology	3
Directed research and electives	variable
Students will register for a variable number of credit hours of MICR 697 Directed Research in Microbiology and elective	variable

courses to amass the required minimum of 58 credit hours.

Total graduate credit hours required (minimum)

58

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on doctoral programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.

Microbiology and Immunology, Master of Science (M.S.)

Graduate program director

Cynthia Nau Cornelissen, Ph.D. Professor, Department of Microbiology and Immunology cncornel@vcu.edu (804) 828-2306

Additional contact

Martha L. VanMeter Office services specialist mlvanmeter@vcu.edu (804) 828-9728

Program website: vcu.edu/micro

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Microbiology and Immunology, Doctor of Philosophy (Ph.D.)
Microbiology and Immunology, Doctor of Philosophy (Ph.D.) with a
concentration in molecular biology and genetics
Microbiology and Immunology, Master of Science (M.S.) with a concentration in
molecular biology and genetics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

emester(s)	D	
()	Deadline	Test
f entry:	dates:	requirements:
all	Applications received prior to Jan 15 given priority consideration	GRE, DAT or MCAT
		prior to Jan 15 given priority consideration

Special requirements: Successful domestic applicants typically have GRE scores of at least 156 for verbal reasoning and 153 for quantitative reasoning, 4.0 for analytical reasoning; DAT score of 18 or greater; or MCAT score of 26 or greater. International applicants should display English language proficiency by achieving a TOEFL score of 100 (iBT) or higher.

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following minimum requirements.

- Applicants must have earned or expect a baccalaureate or equivalent degree and must have demonstrated a superior knowledge of biology, chemistry, physics and mathematics.
- 2. Laboratory experience is strongly recommended.
- 3. The Graduate Record Examination is required, as are letters of recommendation and a letter summarizing the applicant's goals.
- 4. For combined degree students, the Medical College Admission Test or Dental Aptitude Test is accepted in lieu of the GRE.
- 5. Foreign applicants who do not use English as their native language must take the Test of English as a Foreign Language examination.

Complete application portfolio reviews will begin in January and will continue through May 1. International students requiring temporary U.S. visas should apply by April 1 for fall matriculation.

Research-intensive, non-thesis curriculum for medical students

Individuals who are participants in Doctor of Medicine program at VCU may be eligible for enrollment in research-intensive, non-thesis study in the program. Please contact the graduate program director for additional information.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The graduate programs of the Department of Microbiology and Immunology in the School of Medicine include degrees offered at the master's and doctoral levels. These educational programs have as their mission the preparation of individuals

for a variety of career objectives in microbiology and immunology. The programs incorporate formal instructional activities and, as appropriate, research training, mentored by the members of the faculty. The M.S. program is distinguished by inclusion of the preparation of the individual to function as a laboratory director or scientific investigator.

- The program is designed to provide students with the skills required to advance to positions as bioscience researchers and trainers in a broad spectrum of positions.
- The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience, an ability to synthesize this information and apply this foundation to the identification of key areas of investigation/experimentation in bioscience.
- The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified.
- 4. In addition, the program will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.

Student learning outcomes

- Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 2. General knowledge of sciences: Degree candidates will demonstrate an appropriate level of knowledge of the current elements of the biosciences as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications as measured by rubric.
- Communication skills: Degree candidates will demonstrate that an appropriate level of oral, written and visual communication skills have been acquired as measured by rubric.
- 4. Experimental design: Degree candidates will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments as measured by rubric.

Degree requirements

The Department of Microbiology and Immunology has an outstanding faculty with diverse research interests that include cell and molecular biology, molecular genetics, molecular pathogenesis, bacteriology, immunology, immunotoxicology, virology, parasitology, mycology and oncology. The goal of the graduate program is to prepare students to become creative problem-solvers and leaders in scientific research. The Master of Science degree is offered, as well as a Ph.D. and an M.D./ Ph.D. degree for medical students interested in academic or research careers.

The research experience is complemented with excellent course offerings, seminar programs, teaching opportunities, presentations at scientific meetings and writing scientific papers. Graduate students acquire a wide range of research experience in the first year through exposure to a variety of research laboratories and investigators. The student chooses a research adviser and then carries out an original, independent research project under the direction of the adviser. The project falls under the review of an advisory committee and a written dissertation is defended in a final oral examination.

M.S. students will select their permanent advisers after three rotations completed during the first year of study. Research projects will be based on ongoing research in laboratories of the selected permanent adviser. A graduate advisory committee will be developed by the student and adviser. The M.S. student and the GAC will formulate a suitable curriculum of study based on the student's area of research interest.

In addition to the general VCU Graduate School graduation requirements, students in the M.S. degree program must complete a minimum of 41 credit hours (25 credit hours in didactic formal graduate courses, a minimum of four elective credit hours and a minimum of 12 directed research hours). Additional hours may be

completed for successful outcome of the M.S. degree. A cumulative GPA of 3.0 (with no more than six credit hours of a C grade) is required to continue in the program.

An oral defense, consisting of a public presentation of the thesis and a committee meeting to discuss the results, under the direction of the GAC but open to all faculty members, students and staff, shall be scheduled to examine the student's underlying fundamental knowledge of the disciplines encompassed by the student's research. Announcement of the oral defense, including the candidate's name, project title, and the day, place and time of the defense, shall be made at least seven working days in advance of the defense.

Curriculum requirements

Courses	Credit hours
Core didactic courses	25
BIOC 530 Biochemistry, Cell and Molecular Biology Module 1: Protein Structure and Function	2
BIOC 531 Biochemistry, Cell and Molecular Biology Module 2: Basic Metabolism	1
BIOC 532 Biochemistry, Cell and Molecular Biology Module 3: Central Dogma of Molecular Biology	1
BIOC 533 Biochemistry, Cell and Molecular Biology Module 4: Lipids/Membranes and Bioenergetics	1
IBMS 600 Laboratory Safety	1
MICR/BIOC 504 Biochemistry, Cell and Molecular Biology	5
MICR 505 Immunobiology	3
MICR 515 Principles of Molecular Microbiology	3
MICR 608 Introduction to Microbiology and Immunology Research	3
MICR 609 Introduction to Microbiology and Immunology Research	3
MICR 690 Microbiology Research Seminar	1
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	1
Electives	4
MICR 605 Prokaryotic Molecular Genetics	3
MICR 607 Techniques in Molecular Biology and Genetics	2
MICR 616 Mechanisms of Viral and Parasite Pathogenesis*	3
MICR 618 Molecular Mechanisms of Bacterial Pathogenesis*	3
MICR/BNFO 653 Advanced Molecular Genetics: Bioinformatics	3
MICR 684 Molecular Biology of Cancer	3
MICR 686 Advanced Immunobiology	3
MICR 692 Current Topics in Molecular Pathogenesis, MICR 693 Topics in Molecular Biology and Genetics or MICR 694 Current Topics in Immunology (a journal club course taken for one semester every year)	variable
Directed research MICR 697 Directed Research in Microbiology	12 (minimum) 12 (minimum)
men of Diocea Research in Microbiology	12 (1111111111111)

Total graduate credit hours required (minimum)
*MICR 616 and MICR 618 are offered in alternate years.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Microbiology and Immunology, Master of Science (M.S.) with a concentration in molecular biology and genetics

Graduate program director

Gail E. Christie, Ph.D.

Professor, Department of Microbiology and Immunology christie@vcu.edu

(804) 828-9093

Program website: vcu.edu/mbg

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Microbiology and Immunology, Doctor of Philosophy (Ph.D.) Microbiology and Immunology, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Microbiology and Immunology, Master of Science (M.S.) with a concentration in molecular biology and genetics			
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE; TOEFL for
	Fall	Deadline date rolling, preference given to applications received by Jan 17	native language is not

Special requirements:

Applications for the program should be submitted to Molecular Biology and Genetics – M.S. selected from the drop-down menu of programs of the VCU online graduate application form. The degree awarded will be a Master of Science in Microbiology and Immunology.

In addition to the general admission requirements of the VCU Graduate School, applicants must have earned or expect to earn a baccalaureate or equivalent degree, and must have demonstrated a superior knowledge of biology, chemistry, physics and mathematics. Laboratory experience is also strongly recommended. The Graduate Record Examination is required, as are letters of recommendation and a letter summarizing the applicant's goals. International applicants who do not

use English as their native language must take the Test of English as a Foreign Language examination.

Research-intensive, non-thesis curriculum for medical students

Individuals who are participants in Doctor of Medicine program at VCU may be eligible for enrollment in research-intensive, non-thesis study in the program. Please contact the graduate program director for additional information.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The molecular biology and genetics curriculum is an integrated interdisciplinary program of study that builds on the graduate programs of participating departments in the School of Medicine. The master's curriculum is designed to be an intensive course of study that will provide students with the skills required to advance to research-oriented careers in biotechnology or provide the foundation for further graduate study toward a Ph.D.

It is expected that the program should be completed in approximately two to twoand-one-half years.

- The curriculum includes core, specialization and elective courses. Electives drawn from various departments allow individual specialization.
- 2. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience, an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation. The program relates this framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified.
- In addition, the program will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.
- The final three semesters include a research project conducted under the guidance of a selected faculty mentor and culminates in the presentation and defense of a master's thesis.

Participating faculty are associated not only with programs and departments within the School of Medicine, but also with the VCU Massey Cancer Center, the Philips Institute for Oral and Craniofacial Molecular Biology (School of Dentistry), the Institute of Structural Biology and Drug Discovery (School of Pharmacy) and the VCU Center for the Study of Biological Complexity (VCU Life Sciences).

The interdisciplinary approach to the solution of biological problems provided by this training is designed to develop in students the flexibility and problem-solving skills necessary for success in a variety of scientific career opportunities or further graduate study.

Student learning outcomes

- Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- General knowledge of sciences: Degree candidates will demonstrate an
 appropriate level of knowledge of the current elements of the biosciences as
 related to disciplinary specialization and a more detailed understanding of the
 individual area of scholarship, including an appropriate familiarity with the
 research literature and the ability to evaluate and critique publications, as
 measured by rubric.
- Communication skills: Degree candidates will demonstrate that an appropriate level of oral, written and visual communication skills have been acquired.
 - a. Oral communication skills: Degree candidates will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric.
 - b. Written communication skills: Degree candidates will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.
- Experimental design: Degree candidates will demonstrate the achievement of
 an appropriate level of competence in the ability to appraise, modify and/or
 create, and implement experimental protocols and to design and develop
 experiments as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, the interdisciplinary master's curriculum in molecular biology and genetics requires a minimum of 48 credit hours, at least half of which must be course work restricted to graduate students. The curriculum includes19 credit hours of required core course work and 29 additional credit hours of required course work, directed research and research seminar course work, and additional approved course work, as listed below. M.S. candidates must pass a final oral examination. A written thesis approved by the student's graduate advisory committee completes the requirements leading to the M.S. degree.

Curriculum requirements

Courses	Credit hours
Required core courses	19
BIOC 530 Biochemistry, Cell and Molecular Biology Module 1: Protein Structure and Function*	2
BIOC 531 Biochemistry, Cell and Molecular Biology Module 2: Basic Metabolism*	1
BIOC 532 Biochemistry, Cell and Molecular Biology Module 3: Central Dogma of Molecular Biology*	1
BIOC 533 Biochemistry, Cell and Molecular Biology Module 4: Lipids/ Membranes and Bioenergetics*	1
IBMS 600 Laboratory Safety	1
IBMS 620 Laboratory/Clinical Rotations; sections 004 and 005** (two-credit course taken twice)	4
MICR/BIOC 504 Biochemistry, Cell and Molecular Biology	5
MICR 607 Techniques in Molecular Biology and Genetics	2
MICR 693 Topics in Molecular Biology and Genetics (MBG journal club, must take at least once)	1
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	1

Other required course work

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Any appropriate graduate-level course offered by the School of Medicine 3 or with the course designations of BIOL, BNFO, CHEB, CHEM, CLSE, EGRB, EPID, MEDC

Directed research and seminar

BIOC 697 Directed Research in Biochemistry or MICR 697 Directed variable Research in Microbiology (Note: Students must take a minimum of one credit hour of directed research every semester of enrollment in the program after the first year of study.)

MICR 690 Microbiology Research Seminar (section 002, MBG; one-credit course) (Note: Students must take a minimum of one credit hour of research seminar course work every fall and spring semester of enrollment in the program.)

Students make take additional course work with the approval of their graduate program directors.

Total graduate credit hours required (minimum)

48

- * This requirement may also be satisfied with BIOC 503 Biochemistry, Cell and Molecular Biology (five credit hours).
- ** This requirement may also be satisfied, under certain circumstances, with MICR 608 or MICR 609 Introduction to Microbiology and Immunology Research (three credit hours; section 002). Consult with the program director.

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

M.S. students in the MBG curriculum must prepare a formal written research plan and make an oral presentation of their thesis research proposals and progress reports to their graduate advisory committees prior to the beginning of the second year of residency. The student's knowledge in the area of the proposed research, current research accomplishments and the feasibility of the proposed research project will be evaluated by the GAC. Successful completion of this review is required for continuance in the program and constitutes admission to candidacy.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Neuroscience, Doctor of Philosophy (Ph.D.)

Graduate program director

John W. Bigbee, Ph.D.

Professor, Department of Anatomy and Neurobiology

jbigbee@vcu.edu

(804) 828-0948

Program website: neuroscience.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Neuroscience, Doctor of Philosophy (Ph.D.)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Ph.D.	Fall		GRE, MCAT or DAT
		priority consideration	international

Special requirements: Applications for the program must be submitted to the Biomedical Sciences Doctoral Portal – School of Medicine – Ph.D. selected from the drop-down menu of programs on the VCU online application form.

In addition to the general admission requirements of the VCU Graduate School, successful applicants will typically have the following credentials:

- Baccalaureate degree or its equivalent at the time of enrollment, with an undergraduate GPA of 3.5
- 2. GRE > 153 quantitative, 156 verbal (or combined 1,250 on previous scale) and 4.0 analytical scores
- TOEFL score of 600 (pBT), 250 (cBT) or 100 (iBT; or 6.5 on the IELTS for individuals for whom English is a second language
- 4. Personal statements, including:
 - a. Long-term career goals to assess reasons behind application
 - b. How a Ph.D. in biomedical science helps achieve those goals
 - c. Initial motivating factors for a career in research
 - d. Research experience, including dates, places and duration
- Equivalent of two semesters of general chemistry, two semesters of organic chemistry and two semesters of upper-level biology courses (e.g. cell biology, molecular biology, biochemistry, genetics, neuroscience, physiology or biophysics)

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website

and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Degree program goals

Program mission

The program offers an interdepartmental, integrated curriculum for graduate study leading to the Ph.D. in Neuroscience. The program prepares students to teach in the neuroscience disciplines at a university or academic health center and is distinguished by its objective to prepare students to function as independent research investigators.

Program goals

Upon completion of the Ph.D. in Neuroscience degree program, students will have:

- 1. Demonstrated a mastery of neuroscience and related bioscience knowledge
- 2. Developed effective oral, written and electronic communication skills
- Demonstrated the ability to formulate, design, implement and interpret experimental approaches
- Reached a level of competency to advance to positions as neuroscience researchers and teachers in a broad spectrum of academic, industrial and government employment venues
- 5. Successfully obtained employment in a neuroscience-related position

Student learning outcomes

- Acquire the core knowledge of neuroscience: Students will demonstrate acquisition of core knowledge presented in required and elective courses.
- Demonstrate knowledge of the neuroscience scientific literature: Students will demonstrate the ability to integrate and comprehensively review the scientific literature.
- 3. Acquire competency in oral communication: Students will prepare and deliver effective seminars and poster presentations.
- Acquire competency in written communication: Students will generate an
 original dissertation and written comprehensive exam, as well as prepare and
 publish high quality scientific manuscripts.
- Demonstrate the ability to design experiments: Students will evaluate existing scientific knowledge related to their project, identify a scientific question and formulate testable hypotheses.
- Demonstrate the ability to conduct and interpret experiments: Students design
 experiments to test their hypotheses, carry out those experiments and
 interpret their results.
- Obtain employment upon graduation: Student will successfully obtain employment in a neuroscience-related position upon graduation.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students in the Ph.D. program must complete a minimum of 69 graduate credit hours.

Students must maintain a minimum cumulative GPA of 3.0 and must receive a minimum grade of B for all required courses. A student who receives a grade of C in a required course shall repeat the course. A second grade of C in a required course shall result in dismissal from the program.

At the end of the second year of required and elective course work, students will take written and oral comprehensive examinations. The written examination is an open-book written exam which is designed to: (1) assess the student's ability to integrate course material and (2) demonstrate critical thinking and evaluation of the literature in the basic health sciences related to the student's area of research.

This part is based on a question provided to the student by their adviser and graduate advisory committee. The answer should be 25 to 35 pages in length and must represent the student's unaided work. This section of the exam is graded as pass/fail and must be completed by June 30 of the second year.

After passing the written comprehensive examination, students will schedule the proposal defense within six months. For the proposal defense, students will prepare an NIH-style grant proposal based on their research plans. The proposal will form the basis of the oral candidacy exam. Students are strongly encouraged to submit their proposals for extramural funding (e.g., NIH predoctoral fellowships) where appropriate.

After successful completion of both parts of the written candidacy exam, the student's graduate advisory committee will administer the oral candidacy examination, which entails an oral defense of the student's grant proposal as well as the topics covered in part one of the written candidacy exam. The oral candidacy exam covers: (1) course work related to the student's proposed research; (2) the literature cited in or related to the proposal; and (3) the hypotheses, research techniques and procedures presented in the proposal.

Successful completion of the oral candidacy exam advances the student to candidacy for the doctoral degree. The oral candidacy exam must be completed prior to the beginning of the third year.

Beginning with the spring semester the third year in the graduate program, students will devote their full time to conducting research in their advisers' laboratories. Students also register for neuroscience research seminar and journal club each semester.

At the appropriate time in their research, students will prepare a dissertation and schedule a final oral defense of the thesis. The final oral examination (defense of the dissertation) will be limited to the subject of the candidate's dissertation and related basic science.

It is anticipated that students will complete the program in four to five years. All requirements for the Ph.D. degree must be completed within eight years from the date of matriculation in the degree program. Extensions may be approved in extenuating circumstances.

Credit hours

Curriculum requirements

Courses

Courses	Credit nours
ANAT 610 Systems Neuroscience	4
ANAT 615 Techniques in Neuroscience and Cell Biology	3
ANAT 620 Scientific Writing and Grantsmanship	2
ANAT 630 Research Presentations (one-credit course repeated)	8
BIOC/MICR 503 Biochemistry, Cell and Molecular Biology	5
BIOC 691 Special Topics in Biochemistry (critical thinking)	1
IBMS 600 Laboratory Safety	1
IBMS 610 Laboratory Opportunities	0.5
IBMS 620 Laboratory Rotations (two-credit course repeated)	6
IBMS 680 Proposal Preparation	1
MICR/BIOC 504 Biochemistry, Cell and Molecular Biology	5
NEUS 609 Cellular and Molecular Neuroscience	4
NEUS 690 Neuroscience Research Seminar (one-credit course repeated)	8
NEUS 697 Directed Research (variable credit, repeated)	variable
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	1
Electives (Choose two courses from list below.)	6-8
Students register for the combination of the two electives and NEUS 697 Directed Research to reach the required minimum of 69 credits.	
Total graduate credit hours required (minimum)	69
Electives Choose two courses from the following list of electives. Others may be approved by the graduate program director.	
ANAT 529 Functional Neuroanatomy	1

ANAT 617 Techniques in Neuroscience and Cell Biology	4
BIOC 605 Molecular Biology	3
BIOS/STAT 543 Statistical Methods I	3
IBMS 635 Cellular Signaling	3
NEUS 619 Synaptic Organization of the Brain	3
PHIS 604 Cell Physiology: From Molecules to Organisms	3
PHIS 606 Cell Physiology: From Molecules to Organisms	3
PHIS 619 Mitochondrial Pathophysiology and Human Diseases	3
PHIS/PHTX 620 Ion Channels in Membranes	3
PHIS 631 Electrophysiology and Photonic Methods	2
PHTX 536 Principles of Pharmacology and Toxicology	5
PHTX 537 Principles of Pharmacology and Toxicology	5
PHTX 548 Drug Dependence	3
PHTX 632 Neurochemical Pharmacology	3

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on doctoral programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)

Graduate program director Hamid I. Akbarali, Ph.D. Professor and vice chair, Department of Pharmacology and Toxicology historial/barali@vcu.edu

(804) 828-7918

Additional contact

Sheryol W. Cox

Coordinator, graduate programs in pharmacology and toxicology swcox@vcu.edu

(804) 828-8400

Program website: pharmtox.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Pharmacology and Toxicology, Master of Science (M.S.)

Pharmacology and Toxicology, Master of Science (M.S.) with a concentration in molecular biology and genetics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Ph.D.	Fall	Applications received prior to Jan 15 given priority consideration	TOEFL (individuals

Special requirements: Applications for the program must be submitted to the Biomedical Sciences Doctoral Portal – School of Medicine – Ph.D. selected from the drop-down menu of programs on the VCU online application form.

In addition to the general admission requirements of the VCU Graduate School, successful applicants will typically have the following credentials:

- A baccalaureate degree or its equivalent at the time of enrollment, with an undergraduate GPA of 3.5
- 2. Current GRE scores (taken within the past five years), with scores at the 75th percentile or greater preferred
- TOEFL scores of 600 (pBT), 250 (cBT) or 100 (iBT) for individuals for whom English is a second language; or 6.5 on the IELTS (To report GRE or TOEFL score, use VCU Code 5570.)
- 4. Personal statements, which should include: long-term career goals to assess reasons behind the candidate's application; how a Ph.D. in biomedical science helps achieve those goals; the factors motivating a career in research; research experience, including dates, places and duration
- Three letters of recommendation that speak to the scientific competency and experience of the applicant
- The equivalent of two semesters of general chemistry, two semesters of organic chemistry and two semesters of upper-level biology courses (e.g. cell biology, molecular biology, biochemistry, genetics, neuroscience, physiology, biophysics, etc.)

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Ph.D. program is designed to provide students with the skills required to advance to positions as bioscience researchers and trainers in a broad spectrum of positions. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience, an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation in bioscience. The program relates this framework to the development of the ability to design, implement and interpret experimental approaches that address the questions identified. In addition, the program will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.

Student learning outcomes

- Oral communication skills: The candidate will demonstrate the achievement
 of an appropriate level of oral communication skills with respect to the
 content, organization, logical flow, presentation and appropriate use of
 language incorporating the use of visual aids, as measured by rubric.
- Written communication skills: The candidate will demonstrate the
 achievement of an appropriate level of written communication skill with
 respect to grammar, syntax, spelling and use of vocabulary to effectively
 present information including the use of figures, tables and citations as
 measured by rubric.
- Experimental design: The candidate will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments as measured by rubric.
- 4. Problem-solving skills: The candidate will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 5. General knowledge of science: The candidate should demonstrate a general knowledge of the elements of the sciences as related to molecular/cellular bioscience and a detailed knowledge of his or her area of research, including an appropriate familiarity with the research literature.

Degree requirements

The broad base offered in the PhD. program in pharmacology and toxicology, together with basic training in physiology and biochemistry, provides the background for a successful career in academic institutions, industry or government. The research program of the department is sufficiently broad to provide an adequate basis for entry into a wide variety of interesting areas of modern biology and medicine.

In addition to the general VCU Graduate School graduation requirements, students must complete a minimum of 60 graduate credit hours. With few exceptions, Ph.D. students are enrolled in the Biomedical Sciences Doctoral Portal from matriculation until matched with an adviser, usually by the summer semester of the second year. The students are moved into the Ph.D. in Pharmacology and Toxicology major after meeting program requirements. Students customarily complete formal course work in pharmacology and biochemistry during the first year of study. Participation in research also is begun early in the first year. Students interested or committed to pharmacology should take the asterisked (*) courses listed in the curriculum requirements section during the portal period to assure rapid progress toward the degree.

In the third and subsequent years, the majority of the course load is taken as PHTX 697 Directed Research in Pharmacology. Advanced electives also may be taken as desired and with the approval of the adviser. Students and faculty participate in a seminar program (PHTX 690 Pharmacology Research Seminar) that includes distinguished visiting scientists from the U.S. and abroad. Following completion of a qualifying examination, a degree candidate is required to submit

and defend a thesis embracing an original research project conducted under the guidance and supervision of an adviser and an advisory committee. There is no foreign language requirement. The average time necessary to complete the doctoral program in pharmacology and toxicology is four to five years.

Curriculum requirements

Courses	Credit hours
Required courses	19
HGEN 692 Special Topics (classical and near class paper)* or IBMS 630 Critical Thinking*	1 (minimum)
IBMS 600 Laboratory Safety*	1
IBMS 610 Laboratory Opportunities	1
IBMS 620 Laboratory Rotations* (two-credit course taken for three rotations)	6
IBMS 680 Proposal Preparation	1
PHTX 536 Principles of Pharmacology and Toxicology	5
PHTX 690 Pharmacology Research Seminar or IBMS 690 Basic Health Sciences Research Seminar*	1
PHTX 691 Special Topics in Pharmacology (basic concepts for graduate students)	3
Recommended electives and directed research	41
Students register for a combination of PHTX 697 Directed Research in Pharmacology and elective courses as indicated below for a total of 41 credit hours to reach the required minimum of 60 credit hours.	
ANAT 610 Systems Neuroscience	4
BIOC/MICR 503 Biochemistry, Cell and Molecular Biology	5
BIOC/MICR 504 Biochemistry, Cell and Molecular Biology	5
BIOC 601 Membranes and Lipids	3
BIOC 602 Physical Properties of Macromolecules	4
BIOC 605 Molecular Biology	3
CHEM 504 Advanced Organic Chemistry I	3
EGRB 603 Biomedical Signal Processing	3
EGRB 610 Microprocessor Interfacing for Biomedical Instrumentation	3
IBMS 635 Cellular Signaling	3
MEDC 541 Survey of Molecular Modeling Methods	1
MEDC 601 Advanced Medicinal Chemistry I	1
MEDC 630 Theoretical Methods in Drug Design	2
MICR 505 Immunobiology	3
MICR/BNFO 653 Advanced Molecular Genetics: Bioinformatics	3
NEUS 609 Cellular and Molecular Neuroscience	4
PHIS 501 Mammalian Physiology	5
PHIS 604 Cell Physiology: From Molecules to Organisms	3
PHIS 615 Signal Detection in Sensory Systems	3
PHTX 632 Neurochemical Pharmacology	3
PHTX 633 Behavioral Pharmacology	3
PHTX/FRSC 644 Forensic Toxicology	3
PHTX 697 Directed Research in Pharmacology	variable
Total graduate credit hours required (minimum)	60

^{*}Students interested or committed to pharmacology should take the asterisked courses during the portal year to assure rapid progress toward the degree.

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Students wishing to matriculate into the Department of Pharmacology and Toxicology can contact the program director for further advice on course requirements and advising.

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on doctoral programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Graduate program director

Gail E. Christie, Ph.D.

Professor, Department of Microbiology and Immunology christie@vcu.edu (804) 828-9093

Program website: vcu.edu/mbg

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.) Pharmacology and Toxicology, Master of Science (M.S.)

Pharmacology and Toxicology, Master of Science (M.S.) with a concentration in molecular biology and genetics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics				
Degree:	Semester(s)	Deadline	Test	
	- £ 4	.1 . 4		

Degree: Semester(s) Deadline lest
of entry: dates: requirements:

Ph.D. Fall Applications received GRE, MCAT or DAT
prior to Jan 15 given
priority consideration

Special requirements: MCAT or DAT acceptable in lieu of GRE for combined professional/academic degree programs

Applications for the program must be submitted to the Biomedical Sciences Doctoral Portal – School of Medicine – Ph.D. selected from the drop-down menu of programs on the VCU online application form.

In addition to the general admission requirements of the VCU Graduate School, successful applicants will typically have the following credentials:

- A baccalaureate degree or its equivalent at the time of enrollment, with an undergraduate GPA of 3.5
- 2. Current GRE scores (taken within the past five years), with scores at the 75th percentile or greater preferred
- TOEFL scores of 600 (pBT), 250 (cBT) or 100 (iBT) for individuals for whom English is a second language; or 6.5 on the IELTS (To report GRE or TOEFL score, use VCU Code 5570.)
- 4. Personal statements, which should include: long-term career goals to assess reasons behind the candidate's application; how a Ph.D. in biomedical science helps achieve those goals; the factors motivating a career in research; research experience, including dates, places and duration
- Three letters of recommendation that speak to the scientific competency and experience of the applicant
- The equivalent of two semesters of general chemistry, two semesters of organic chemistry and two semesters of upper-level biology courses (e.g. cell biology, molecular biology, biochemistry, genetics, neuroscience, physiology, biophysics, etc.)
- 7. Laboratory experience also strongly recommended

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The molecular biology and genetics curriculum is an integrated interdisciplinary program of study that builds on the graduate programs of participating departments in the School of Medicine. The doctoral curriculum is designed to be an intensive course of study that will provide students with the skills required to advance to research-oriented careers in biotechnology.

 The curriculum includes core, specialization and elective courses. Electives drawn from various departments allow individual specialization.

- 2. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience, an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation. The program relates this framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified.
- In addition, the program will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.
- The program centers on a research project conducted under the guidance of a selected faculty mentor and culminates in the presentation and defense of a doctoral dissertation.

Participating faculty are associated not only with programs and departments within the School of Medicine, but also with the VCU Massey Cancer Center, the Philips Institute for Oral and Craniofacial Molecular Biology (School of Dentistry), the Institute of Structural Biology and Drug Discovery (School of Pharmacy) and the VCU Center for the Study of Biological Complexity (VCU Life Sciences).

The interdisciplinary approach to the solution of biological problems provided by this training is designed to develop in students the flexibility and problem-solving skills necessary for success in a variety of scientific career opportunities or further graduate study.

Student learning outcomes

- Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- General knowledge of sciences: Degree candidates will demonstrate an
 appropriate level of knowledge of the current elements of the biosciences as
 related to disciplinary specialization and a more detailed understanding of the
 individual area of scholarship, including an appropriate familiarity with the
 research literature and the ability to evaluate and critique publications, as
 measured by rubric.
- Communication skills: Degree candidates will demonstrate that an appropriate level of oral, written and visual communication skills have been acquired.
 - a. Oral communication skills: Degree candidates will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric.
 - b. Written communication skills: Degree candidates will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.
- 4. Experimental design: Degree candidates will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students must complete a minimum of 60 graduate credit hours.

During the first year, students pursue research rotations, take formal course work and become familiar with current research topics through seminars, discussion groups and lectures by distinguished scientists. By the end of the first year, students choose a faculty adviser and begin dissertation research. Prior to the beginning of the third year of study, students should successfully pass written and oral candidacy examinations. Following completion of the research project and defense of the doctoral dissertation, graduates are equipped to participate in a broad range of current biomedical research areas.

Curriculum requirements

Courses	Credit hours
Required courses	variable
BIOC 503-504 Biochemistry, Cell and Molecular Biology	10
BIOC 602 Physical Properties of Macromolecules (modules 1 and 2)	2
IBMS 600 Laboratory Safety	1
IBMS 610 Laboratory Opportunities	0.5
IBMS 620 Laboratory/Clinical Rotations (two-credit course taken for three rotations)	6
IBMS 630 Critical Thinking (or BIOC 691 or HGEN 691 equivalents)	1
IBMS 680 Proposal Preparation	1
IBMS 690 Basic Health Sciences Research Seminar (first year only)	1
MICR 605 Prokaryotic Molecular Genetics	3
MICR 607 Techniques in Molecular Biology and Genetics	2
MICR 690 Microbiology Research Seminar (section 002 – MBG; one-credit course to be taken every semester beginning in the second year)	variable
MICR 693 Topics in Molecular Biology and Genetics (MBG journal club - must take at least twice)	2
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	1
A course in eukaryotic molecular biology from the following list of approved options (or an approved alternative):	3
BIOC 605 Molecular Biology	3
HGEN 602 Genetic Models of Disease	3
HGEN 614 Pathogenesis of Human Genetic Disease	3
IBMS 635 Cellular Signaling	3
MICR 684 Molecular Biology of Cancer	3
PATH 670 Experimental Approaches to Tumor Biology	3
Directed research and elective courses	variable
Students will register for a variable number of credit hours of PHTX 697 Directed Research in Pharmacology and elective courses to amass the required minimum of 60 credit hours.	variable
Total graduate credit hours required (minimum)	60

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on doctoral programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.

Pharmacology and Toxicology, Master of Science (M.S.)

Graduate program director

Hamid I. Akbarali, Ph.D.

Professor and vice chair, Department of Pharmacology and Toxicology hiakbarali@vcu.edu (804) 828-7918

Additional contact

Sheryol W. Cox

Coordinator, graduate programs in pharmacology and toxicology swcox@vcu.edu (804) 828-8400

Program website: pharmtox.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Pharmacology and Toxicology, Master of Science (M.S.) with a concentration in molecular biology and genetics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Pharmacology and Toxicology, Master of Science (M.S.)			
Semester(s) of entry:	Deadline dates:	Test requirements:	
Fall	Apr 15	GRE	
		MCAT acceptable in lieu of GRE	
	Semester(s) of entry:	Semester(s) Deadline of entry: dates:	

In addition to the general admission requirements of the VCU Graduate School, qualified applicants to the M.S. degree program typically must have:

- Baccalaureate degrees with a major in fields such as biology, chemistry, biochemistry, pharmacy and related sciences
- GRE scores of 1100 (verbal plus quantitative) and 3.5 (analytical) or equivalent scores on the new GRE exam
- 3. Undergraduate GPA of 3.2

4. Some laboratory research experience

Research-intensive, non-thesis curriculum for medical students

Individuals who are participants in Doctor of Medicine program at VCU may be eligible for enrollment in research-intensive, non-thesis study in the program. Please contact the graduate program director for additional information.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The graduate program leading to the Master of Science in Pharmacology and Toxicology prepares individuals for a variety of career objectives in biomedical science. These careers include but are not limited to as industrial scientists and scientists in government regulatory agencies. The M.S. program will be of interest to individuals planning on pursuing technical positions in pharmacology or toxicology research or testing; students interested in the health professions, such as medicine or dentistry, who desire additional research training; and those interested in government positions, such as those in regulatory agencies, that require training in pharmacology and toxicology.

The program incorporates formal instructional activity and research training mentored by members of the graduate faculty. The master's program is distinguished from the Ph.D. degree offered by the department in that the M.S. student is not being prepared for a career as an independent investigator.

Student learning outcomes

- Communication skills: Degree candidates will demonstrate the achievement
 of an appropriate level of oral communication skills with respect to the
 content, organization, logical flow, presentation and appropriate use of
 language incorporating the use of visual aids, as measured by rubric. The
 candidate will demonstrate the achievement of an appropriate level of written
 communication skill with respect to grammar, syntax, spelling and use of
 vocabulary to effectively present information including the use of figures,
 tables and citations as measured by rubric.
- 2. Integrated knowledge of bioscience: Degree candidates will demonstrate an appropriate level of knowledge of the current elements of the biosciences as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications as measured by rubric.
- 3. Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- Experimental design: Degree candidates will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or

create, and implement experimental protocols and to design and develop experiments as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students in the master's program must complete a minimum of 30 graduate credit hours.

The Master of Science in Pharmacology and Toxicology is a research-oriented degree program comprising graduate course work and supervised research leading to a master's thesis. Students must conduct a substantial original investigation under the supervision of their advisers and must prepare and defend a thesis reporting the results of this research. It is highly recommended that students identify mentors for dissertation research as soon as possible within the first semester to ensure timely progress in their research.

When the thesis has been completed, copies are submitted to the members of the student's graduate advisory committee. The student's GAC decides upon the acceptability of the candidate's thesis. If the committee unanimously accepts the thesis for defense, the candidate appears before them for a final oral examination.

M.S. students are required to present a departmental seminar prior to the final oral thesis defense as a requirement for completion of the thesis.

Credit hours

Curriculum requirements

Courses

Courses	Credit nours
Required courses	10
Substitutions may be approved by the graduate program director.	
IBMS 600 Laboratory Safety	1
PHTX 536 Principles of Pharmacology and Toxicology	5
PHTX 690 Pharmacology Research Seminar (M.S. students are required to present a departmental seminar prior to the final oral thesis defense as a requirement for completion of the thesis.)	1
PHTX 691 Special Topics in Pharmacology	3
Advanced elective Students must take one advanced elective course in their specialty areas in addition to completing the research-based dissertation. (See list below.)	3
Directed research	17
PHTX 697 Directed Research in Pharmacology	variable
Total graduate credit hours required (minimum)	30
Recommended advanced electives	
ANAT 610 Systems Neuroscience	4
BIOC/MICR 503 Biochemistry, Cell and Molecular Biology	1-5
BIOC 530 Biochemistry, Cell and Molecular Biology Module 1: Protein Structure and Function	2
BIOC 531 Biochemistry, Cell and Molecular Biology Module 2: Basic Metabolism	1
BIOC 532 Biochemistry, Cell and Molecular Biology Module 3: Central Dogma of Molecular Biology	1
BIOC 533 Biochemistry, Cell and Molecular Biology Module 4: Lipids/Membranes and Bioenergetics	1
BIOC 601 Membranes and Lipids	3
BIOC 602 Physical Properties of Macromolecules	1-4
BIOC 605 Molecular Biology	3
CHEM 504 Advanced Organic Chemistry I	3
EGRB 603 Biomedical Signal Processing	3
EGRB 610 Microprocessor Interfacing for Biomedical Instrumentation	3
IBMS 635 Cellular Signaling	3
MEDC 541 Survey of Molecular Modeling Methods	1
MEDC 601 Advanced Medicinal Chemistry I	1
MEDC 630 Theoretical Methods in Drug Design	2

MICR/BIOC 504 Biochemistry, Cell and Molecular Biology	5
MICR 505 Immunobiology	3
MICR/BNFO 653 Advanced Molecular Genetics:	3
Bioinformatics	
NEUS 609 Cellular and Molecular Neuroscience	4
OVPR 601 Scientific Integrity, OVPR 602 Responsible	1
Scientific Conduct or OVPR 603 Responsible Conduct of	
Research	
PHIS 604 Cell Physiology: From Molecules to Organisms	3
PHIS 615 Signal Detection in Sensory Systems	3
PHTX/PHIS 620 Ion Channels in Membranes	3
PHTX 632 Neurochemical Pharmacology	3
PHTX 633 Behavioral Pharmacology	3
PHTX 644 Forensic Toxicology	3
	

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study, or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/ ?uid=10046&iid=30113.

Pharmacology and Toxicology, Master of Science (M.S.) with a concentration in molecular biology and genetics

Graduate program director Gail E. Christie, Ph.D.

Professor, Department of Microbiology and Immunology christie@vcu.edu (804) 828-9093

Program website: vcu.edu/mbg

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.) Pharmacology and Toxicology, Master of Sciences (M.S.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

0.	and Toxicology, Master ogy and genetics	of Science (M.S.) with a c	oncentration in
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE; TOEFL for
	Fall	Deadline date rolling, preference given to applications received by Jan 17	native language is no

Applications for the program should be submitted to Molecular Biology and Genetics -M.S. selected from the drop-down menu of programs of the VCU online graduate application form. The degree awarded will be a Master of Science in Pharmacology and Toxicology.

In addition to the general admission requirements of the VCU Graduate School, applicants must have earned or expect to earn a baccalaureate or equivalent degree, and must have demonstrated a superior knowledge of biology, chemistry, physics and mathematics. Laboratory experience is also strongly recommended. The Graduate Record Examination is required, as are letters of recommendation and a letter summarizing the applicant's goals. International applicants who do not use English as their native language must take the Test of English as a Foreign Language examination.

Research-intensive, non-thesis curriculum for medical students

Individuals who are participants in Doctor of Medicine program at VCU may be eligible for enrollment in research-intensive, non-thesis study in the program. Please contact the graduate program director for additional information.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

> General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The molecular biology and genetics curriculum is an integrated interdisciplinary program of study that builds on the graduate programs of participating departments in the School of Medicine. The master's curriculum is designed to be an intensive course of study that will provide students with the skills required to

advance to research-oriented careers in biotechnology or provide the foundation for further graduate study toward a Ph.D.

It is expected that the program should be completed in approximately two to twoand-one-half years.

- The curriculum includes core, specialization and elective courses. Electives drawn from various departments allow individual specialization.
- 2. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience, an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation. The program relates this framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified.
- In addition, the program will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.
- The final three semesters include a research project conducted under the guidance of a selected faculty mentor and culminates in the presentation and defense of a master's thesis.

Participating faculty are associated not only with programs and departments within the School of Medicine, but also with the VCU Massey Cancer Center, the Philips Institute for Oral and Craniofacial Molecular Biology (School of Dentistry), the Institute of Structural Biology and Drug Discovery (School of Pharmacy) and the VCU Center for the Study of Biological Complexity (VCU Life Sciences).

The interdisciplinary approach to the solution of biological problems provided by this training is designed to develop in students the flexibility and problem-solving skills necessary for success in a variety of scientific career opportunities or further graduate study.

Student learning outcomes

- Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 2. General knowledge of sciences: Degree candidates will demonstrate an appropriate level of knowledge of the current elements of the biosciences as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications, as measured by rubric.
- Communication skills: Degree candidates will demonstrate that an appropriate level of oral, written and visual communication skills have been acquired.
 - a. Oral communication skills: Degree candidates will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric.
 - b. Written communication skills: Degree candidates will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.
- Experimental design: Degree candidates will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, the interdisciplinary master's curriculum in molecular biology and genetics requires a minimum of 48 credit hours, at least half of which must be course work restricted to graduate students. The curriculum includes 19 credit hours of required core

course work and 29 additional credit hours of required course work, directed research and research seminar course work, and additional approved course work, as listed below. M.S. candidates must pass a final oral examination. A written thesis approved by the student's graduate advisory committee completes the requirements leading to the M.S. degree.

Curriculum requirements

Courses	Credit hours
Required core courses	19
BIOC 530 Biochemistry, Cell and Molecular Biology Module 1: Prot Structure and Function*	tein 2
BIOC 531 Biochemistry, Cell and Molecular Biology Module 2: Bas Metabolism*	ic 1
BIOC 532 Biochemistry, Cell and Molecular Biology Module 3: Cen Dogma of Molecular Biology*	tral 1
BIOC 533 Biochemistry, Cell and Molecular Biology Module 4: Lipi Membranes and Bioenergetics*	ids/ 1
IBMS 600 Laboratory Safety	1
IBMS 620 Laboratory/Clinical Rotations; sections 004 and 005** (two credit course taken twice)	vo- 4
MICR/BIOC 504 Biochemistry, Cell and Molecular Biology	5
MICR 607 Techniques in Molecular Biology and Genetics	2
MICR 693 Topics in Molecular Biology and Genetics (MBG journal club, must take at least once)	1
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	1

Other required course work

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Any appropriate graduate-level course offered by the School of Medicine 3 or with the course designations of BIOL, BNFO, CHEB, CHEM, CLSE, EGRB, EPID, MEDC

Directed research and seminar

MICR 690 Microbiology Research Seminar (section 002, MBG; one-credit course) (Note: Students must take a minimum of one credit hour of research seminar course work every fall and spring semester of enrollment in the program.)

MICR 697 Directed Research in Microbiology (Note: Students must take variable a minimum of one credit hour of directed research every semester of enrollment in the

Students make take additional course work with the approval of their graduate program directors.

Total graduate credit hours required (minimum) 48

- * This requirement may also be satisfied with BIOC 503 Biochemistry, Cell and Molecular Biology (five credit hours).
- ** This requirement may also be satisfied, under certain circumstances, with MICR 608 or MICR 609 Introduction to Microbiology and Immunology Research (three credit hours; section 002). Consult with the program director.

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the

student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

M.S. students in the MBG curriculum must prepare a formal written research plan and make an oral presentation of their thesis research proposals and progress reports to their graduate advisory committees prior to the beginning of the second year of residency. The student's knowledge in the area of the proposed research, current research accomplishments and the feasibility of the proposed research project will be evaluated by the GAC. Successful completion of this review is required for continuance in the program and constitutes admission to candidacy.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Physiology and Biophysics, Doctor of Philosophy (Ph.D.)

Graduate program director

Roland Pittman, Ph.D.
Professor, Department of Physiology and Biophysics
pittman@vcu.edu
(804) 828-9545

Additional contacts

Carlos Escalante, Ph.D. Graduate program assistant director cescalante@vcu.edu (804) 628-1202

Christina Kyrus, M.B.A. Graduate program coordinator cikyrus@vcu.edu (804) 628-5506

Program website: physiology.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Physiology and Biophysics, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Physiology and Biophysics, Master of Science (M.S.)

Physiology and Biophysics, Master of Science (M.S.) with a concentration in molecular biology

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Physiology and Biophysics, Doctor of Philosophy (Ph.D.)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Ph.D.	Fall	Jan 17	GRE, MCAT or DAT

Special requirements: Applications for the program must be submitted to the Biomedical Sciences Doctoral Portal – School of Medicine – Ph.D. selected from the drop-down menu of programs on the VCU online application form.

In addition to the general admission requirements of the VCU Graduate School, successful applicants will typically have the following credentials:

- A baccalaureate degree or its equivalent at the time of enrollment, with an undergraduate GPA of 3.5
- 2. Current GRE scores (taken within the past five years), with scores at the 75th percentile or greater preferred
- TOEFL scores of 600 (pBT), 250 (cBT) or 100 (iBT) for individuals for whom English is a second language; or 6.5 on the IELTS (To report GRE or TOEFL score, use VCU Code 5570.)
- 4. Personal statements, which should include: long-term career goals to assess reasons behind the candidate's application; how a Ph.D. in biomedical science helps achieve those goals; the factors motivating a career in research; research experience, including dates, places and duration
- Three letters of recommendation that speak to the scientific competency and experience of the applicant
- 6. The equivalent of two semesters of general chemistry, two semesters of organic chemistry and two semesters of upper-level biology courses (e.g. cell biology, molecular biology, biochemistry, genetics, neuroscience, physiology, biophysics, etc.)

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

- The program is designed to provide students with the skills required to advance to positions as bioscience researchers and trainers in a broad spectrum of positions.
- The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience, an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation in bioscience.
- The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified.

 In addition, the program will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.

Student learning outcomes

- Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 2. General knowledge of sciences: Degree candidates will demonstrate an appropriate level of knowledge of the current elements of the biosciences as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications, as measured by rubric.
- Communication skills: Degree candidates will demonstrate that an appropriate level of oral, written and visual communication skills have been acquired.
 - a. Oral communication skills: Degree candidates will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric.
 - b. Written communication skills: Degree candidates will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.
- 4. Experimental design: Degree candidates will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments as measured by rubric.

Degree requirements

Graduate study in the Department of Physiology and Biophysics in the School of Medicine is a highly individualized undertaking, of which required course work is only one component. Each student's program is tailored to meet his or her particular interests, with the primary emphasis on developing research skills and the capacity for scholarship.

Opportunities for research experience begin in the first year, when students spend time working in several faculty laboratories of their choice. These lab rotations enable students to examine current faculty research projects and choose their areas of specialization. In the second and subsequent years, increasingly more time is devoted to independent research under the guidance of a faculty adviser. Department-sponsored seminars give students opportunities to discuss their research interests with visiting scientists and many students present their work at national professional meetings.

The Ph.D. program in physiology and biophysics normally takes at least four years to complete. The first two years are devoted mainly to course work. The first year consists primarily of required courses, while the second is geared toward electives and research. On satisfactory completion of two years of course work, students must pass written and oral comprehensive examinations to qualify for degree candidacy. Following admission to candidacy, each student must conduct a substantial original research project, prepare a written dissertation and defend it successfully in an oral examination.

In addition to the general VCU Graduate School graduation requirements, students must complete a minimum of 66 credit hours for the Ph.D., including directed research.

Courses Credit hours

Required courses variable

BIOC/MICR 503 Biochemistry, Cell and Molecular Biology (Note: This is a modular course; the full course is five credit

5

hours, but students may choose to take a subset of the modules for fewer hours.)	
BIOC/MICR 504 Biochemistry, Cell and Molecular Biology	5
BIOC 691 Special Topics in Biochemistry (section-004 critical	1
thinking) (Note: Another critical-thinking course may substitute	
for this requirement, e.g. HGEN 691 or IBMS 630.)	
IBMS 600 Laboratory Safety	1
IBMS 610 Laboratory Opportunities	0.5
IBMS 620 Laboratory Rotations (two-credit course repeated)	6
IBMS 680 Proposal Preparation	1
OVPR 601 Scientific Integrity, OVPR 602 Responsible	1
Scientific Conduct or OVPR 603 Responsible Conduct of	
Research	
PHIS 501 Mammalian Physiology	5
PHIS 604 Cell Physiology: From Molecules to Organisms	3
PHIS 606 Cell Physiology: From Molecules to Organism	3
PHIS 690 Physiology Research Seminar (one-credit course taken	variable
each fall and spring semester)	
PHIS 691 Special Topics in Physiology (section-004: writing	1
workshop)	
PHIS 691 Special Topics in Physiology (section-501: companion	1
to PHIS 501)	
PHIS 692 Special Topics (section-606: seminar for PHIS 606)	1
PHIS 695 Research in Progress (0.5 credit- hour course taken	variable
each fall and spring semester	
Electives: Choose courses for a total of six credit hours from	6
selected 500- and 600-level courses in physiology (PHIS) or	
other basic science departments (ANAT, BIOC, BIOS, HGEN,	
IBMS, MICR and PHTX) or other courses as approved by the	
program	

Directed research and additional courses

vairable variable

PHIS 697 Directed Research in Physiology (1-15 variable credit hour course) and other elective courses approved by the program to amass the required minimum of 66 credit hours

Total graduate credit hours required (minimum) 66

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Department handbook

Applicants and students may request a handbook with additional information, which is also summarized on the departmental website (physiology.vcu.edu/education/phd). Please feel free to contact the graduate program coordinator with any questions.

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on doctoral programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.

Physiology and Biophysics, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Graduate program director

Gail E. Christie, Ph.D.

Professor, Department of Microbiology and Immunology christie@vcu.edu (804) 828-9093

Program website: vcu.edu/mbg

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Physiology and Biophysics, Doctor of Philosophy (Ph.D.)

Physiology and Biophysics, Master of Science (M.S.)

Physiology and Biophysics, Master of Science (M.S.) with a concentration in

molecular biology and genetics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Physiology and Biophysics, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall	Applications received	GRE, MCAT or DAT
		prior to Jan 15 given	
		priority consideration	

Special requirements: MCAT or DAT acceptable in lieu of GRE for combined professional/academic degree programs

Applications for the program must be submitted to the Biomedical Sciences Doctoral Portal – School of Medicine – Ph.D. selected from the drop-down menu of programs on the VCU online application form.

In addition to the general admission requirements of the VCU Graduate School, successful applicants will typically have the following credentials:

- A baccalaureate degree or its equivalent at the time of enrollment, with an undergraduate GPA of 3.5
- Current GRE scores (taken within the past five years), with scores at the 75th percentile or greater preferred

- TOEFL scores of 600 (pBT), 250 (cBT) or 100 (iBT) for individuals for whom English is a second language; or 6.5 on the IELTS (To report GRE or TOEFL score, use VCU Code 5570.)
- 4. Personal statements, which should include: long-term career goals to assess reasons behind the candidate's application; how a Ph.D. in biomedical science helps achieve those goals; the factors motivating a career in research; research experience, including dates, places and duration
- Three letters of recommendation that speak to the scientific competency and experience of the applicant
- The equivalent of two semesters of general chemistry, two semesters of organic chemistry and two semesters of upper-level biology courses (e.g. cell biology, molecular biology, biochemistry, genetics, neuroscience, physiology, biophysics, etc.)
- 7. Laboratory experience also strongly recommended

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The molecular biology and genetics curriculum is an integrated interdisciplinary program of study that builds on the graduate programs of participating departments in the School of Medicine. The doctoral curriculum is designed to be an intensive course of study that will provide students with the skills required to advance to research-oriented careers in biotechnology.

- The curriculum includes core, specialization and elective courses. Electives drawn from various departments allow individual specialization.
- 2. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience, an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation. The program relates this framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified.
- In addition, the program will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.
- The program centers on a research project conducted under the guidance of a selected faculty mentor and culminates in the presentation and defense of a doctoral dissertation.

Participating faculty are associated not only with programs and departments within the School of Medicine, but also with the VCU Massey Cancer Center, the Philips Institute for Oral and Craniofacial Molecular Biology (School of Dentistry), the Institute of Structural Biology and Drug Discovery (School of Pharmacy) and the VCU Center for the Study of Biological Complexity (VCU Life Sciences).

The interdisciplinary approach to the solution of biological problems provided by this training is designed to develop in students the flexibility and problem-solving skills necessary for success in a variety of scientific career opportunities or further graduate study.

Student learning outcomes

- Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- General knowledge of sciences: Degree candidates will demonstrate an
 appropriate level of knowledge of the current elements of the biosciences as
 related to disciplinary specialization and a more detailed understanding of the
 individual area of scholarship, including an appropriate familiarity with the
 research literature and the ability to evaluate and critique publications, as
 measured by rubric.
- Communication skills: Degree candidates will demonstrate that an appropriate level of oral, written and visual communication skills have been acquired.
 - Oral communication skills: Degree candidates will demonstrate the
 achievement of an appropriate level of oral communication skills with
 respect to the content, organization, logical flow, presentation and
 appropriate use of language incorporating the use of visual aids, as
 measured by rubric.
 - b. Written communication skills: Degree candidates will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.
- Experimental design: Degree candidates will demonstrate the achievement of
 an appropriate level of competence in the ability to appraise, modify and/or
 create, and implement experimental protocols and to design and develop
 experiments as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, students must complete a minimum of 66 graduate credit hours.

During the first year, students pursue research rotations, take formal course work and become familiar with current research topics through seminars, discussion groups and lectures by distinguished scientists. By the end of the first year, students choose a faculty adviser and begin dissertation research. Prior to the beginning of the third year of study, students should successfully pass written and oral candidacy examinations. Following completion of the research project and defense of the doctoral dissertation, graduates are equipped to participate in a broad range of current biomedical research areas.

Curriculum requirements

Courses

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Required courses	variable
BIOC 503-504 Biochemistry, Cell and Molecular Biology	10
BIOC 602 Physical Properties of Macromolecules (modules 1 and 2)	2
IBMS 600 Laboratory Safety	1
IBMS 610 Laboratory Opportunities	0.5
IBMS 620 Laboratory/Clinical Rotations (two-credit course taken for three rotations)	6
IBMS 630 Critical Thinking (or BIOC 691 or HGEN 691 equivalents)	1
IBMS 680 Proposal Preparation	1
IBMS 690 Basic Health Sciences Research Seminar (first year only)	1
MICR 605 Prokaryotic Molecular Genetics	3
MICR 607 Techniques in Molecular Biology and Genetics	2

MICR 690 Microbiology Research Seminar (section 002 – MBG; one-credit course to be taken every semester beginning in the second year)	variable
MICR 693 Topics in Molecular Biology and Genetics (MBG journal club - must take at least twice)	2
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of	1
Research	
A course in eukaryotic molecular biology from the following	3
list of approved options (or an approved alternative):	
BIOC 605 Molecular Biology	3
HGEN 602 Genetic Models of Disease	3
HGEN 614 Pathogenesis of Human Genetic Disease	3
IBMS 635 Cellular Signaling	3
MICR 684 Molecular Biology of Cancer	3
PATH 670 Experimental Approaches to Tumor Biology	3
Directed research and electives	variable
Students will register for a variable number of credit hours of	variable

PHIS 697 Directed Research in Physiology and elective courses to amass the required minimum of 66 credit hours.

Total graduate credit hours required (minimum) 66

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

Credit hours

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on doctoral programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.

Physiology and Biophysics, Master of Science (M.S.)

Graduate program director

Roland Pittman, Ph.D. Professor, Department of Physiology and Biophysics pittman@vcu.edu

Additional contacts

(804) 828-9545

Carlos Escalante, Ph.D. Graduate program assistant director cescalante@vcu.edu (804) 628-1202

Christina Kyrus, M.B.A. Graduate program coordinator cikyrus@vcu.edu (804) 628-5506

Program website: physiology.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Physiology and Biophysics, Doctor of Philosophy (Ph.D.)

Physiology and Biophysics, Doctor of Philosophy (Ph.D.) with a concentration in molecular biology and genetics

Physiology and Biophysics, Master of Science (M.S.) with a concentration in molecular biology and genetics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Health Sciences program only.

Physiology and Biophysics, Master of Science (M.S.)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.S.	Fall preferred	Apr 15	GRE, MCAT or DAT
Special requirements: Students admitted through the Certificate in Pre-medical Graduate			

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following minimum requirements: baccalaureate degree or its equivalent at the time of enrollment and successful completion of the Certificate in Pre-medical Graduate Health Sciences.

Research-intensive, non-thesis curriculum for medical students

Individuals who are participants in Doctor of Medicine program at VCU may be eligible for enrollment in research-intensive, non-thesis study in the program. Please contact the graduate program director for additional information.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The master's program in physiology and biophysics s designed to provide students with the skills required to advance to positions as physiology and bioscience researchers and trainers in a broad spectrum of positions. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of physiology and bioscience, as well as an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation in bioscience. The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified. In addition, students will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.

Student learning outcomes

- Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.
- 2. General knowledge of sciences: Degree candidates will demonstrate an appropriate level of knowledge of the current elements of the biosciences as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications, as measured by rubric.
- Communication skills: Degree candidates will demonstrate that an appropriate level of oral, written and visual communication skills have been acquired.
 - a. Oral communication skills: Degree candidates will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric.
 - b. Written communication skills: Degree candidates will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.
- 4. Experimental design: Degree candidates will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments as measured by rubric.

Degree requirements

The Department of Physiology and Biophysics offers courses of study leading to the Master of Science and the Doctor of Philosophy. A combined M.D./Ph.D. degree program also is available through this department and the School of Medicine. It is generally recommended that students intending to pursue careers as professional physiologists should attempt to earn the Ph.D. Work done in partial or complete fulfillment of the requirements for the master's degree may be applied toward the Ph.D. provided that it is of adequate quality.

Graduate education in physiology and biophysics is a highly individualized enterprise, of which the formal course requirements comprise only a portion. The degree program described here provides an opportunity for apprenticeship in research and, through this, the development of a capacity for scholarship. The essence of this type of education lies in the development of a close relationship between the student and the faculty adviser. The adviser and the student, jointly and with the approval of the department chair and the associate dean of medicine for graduate education, select the student's graduate advisory committee.

The M.S. degree program includes a year of course work (completed as part of the Certificate in Pre-medical Graduate Health Sciences program) and a second year largely devoted to the completion of an independent research project, writing a

thesis based on this work and a successful oral defense of this thesis and completed course work.

In addition to the general VCU Graduate School graduation requirements, students must complete a minimum of 30 graduate credit hours for the M.S. in Physiology and Biophysics.

Teaching experience

M.S. students also have the opportunity to acquire teaching experience and financial support by serving as teaching assistants for PHIZ 206 Human Physiology Laboratory for one semester. Teaching assistants must complete PHIS 691-501 Special Topics in Physiology: Physiology 501 Seminar (two credit hours) prior to or concurrent with the assistantship.

Curriculum requirements

Courses	Credit hour
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct (online) or OVPR 603 Responsible Conduct of Research (hybrid)	1
PHIS 604 Cell Physiology: From Molecules to Organisms	3
PHIS 606-001 Cell Physiology: From Molecules to Organism	3
PHIS 690-901 Physiology Research Seminar	2
PHIS 692-606 Special Topics	1
PHIS 697-801 Directed Research in Physiology	20
Total graduate credit hours required (minimum)	30
Advanced optional elective courses available in the second year include:	
PHIS 612 Cardiovascular Physiology	3
PHIS 615 Signal Detection in Sensory Systems	3
PHIS 619 Mitochondrial Pathophysiology and Human Diseases	3
PHIS/PHTX 620 Ion Channels in Membranes	3
PHIS 630 Methods in Molecular Biophysics: A Practical	2
Approach	
PHIS 631 Electrophysiology and Photonic Methods	2
PHIS 691-003 Special Topics in Physiology	3

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Physiology and Biophysics, Master of Science (M.S.) with a concentration in molecular biology and genetics

Graduate program director

Gail E. Christie, Ph.D.

Professor, Department of Microbiology and Immunology christie@vcu.edu (804) 828-9093

Program website: vcu.edu/mbg

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Physiology and Biophysics, Doctor of Philosophy (Ph.D.) Physiology and Biophysics, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	ogy and genetics Semester(s) of	Deadline dates:	Test requirements:
M.S.	entry:		GRE; TOEFL for
	Fall	Deadline date rolling, preference given to applications received by Jan 17	native language is no

Special requirements:

Applications for the program should be submitted to Molecular Biology and Genetics – M.S. selected from the drop-down menu of programs of the VCU online graduate application form. The degree awarded will be a Master of Science in Physiology and Biophysics.

In addition to the general admission requirements of the VCU Graduate School, applicants must have earned or expect to earn a baccalaureate or equivalent degree, and must have demonstrated a superior knowledge of biology, chemistry, physics and mathematics. Laboratory experience is also strongly recommended. The Graduate Record Examination is required, as are letters of recommendation and a letter summarizing the applicant's goals. International applicants who do not use English as their native language must take the Test of English as a Foreign Language examination.

Research-intensive, non-thesis curriculum for medical students

Individuals who are participants in Doctor of Medicine program at VCU may be eligible for enrollment in research-intensive, non-thesis study in the program. Please contact the graduate program director for additional information.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goals

The molecular biology and genetics curriculum is an integrated interdisciplinary program of study that builds on the graduate programs of participating departments in the School of Medicine. The master's curriculum is designed to be an intensive course of study that will provide students with the skills required to advance to research-oriented careers in biotechnology or provide the foundation for further graduate study toward a Ph.D.

It is expected that the program should be completed in approximately two to twoand-one-half years.

- The curriculum includes core, specialization and elective courses. Electives drawn from various departments allow individual specialization.
- 2. The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of bioscience, an ability to synthesize this information and apply this foundation to the identification of key areas of investigation and experimentation. The program relates this framework to the development of the ability to design, implement and interpret experimental approaches which address the questions identified.
- In addition, the program will develop skills in the various means of communicating both the core of bioscience knowledge and the expression of experimental design, results and interpretation to a variety of potential audiences.
- The final three semesters include a research project conducted under the guidance of a selected faculty mentor and culminates in the presentation and defense of a master's thesis.

Participating faculty are associated not only with programs and departments within the School of Medicine, but also with the VCU Massey Cancer Center, the Philips Institute for Oral and Craniofacial Molecular Biology (School of Dentistry), the Institute of Structural Biology and Drug Discovery (School of Pharmacy) and the VCU Center for the Study of Biological Complexity (VCU Life Sciences).

The interdisciplinary approach to the solution of biological problems provided by this training is designed to develop in students the flexibility and problem-solving skills necessary for success in a variety of scientific career opportunities or further graduate study.

Student learning outcomes

 Problem-solving skills: Degree candidates will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems as measured by rubric.

- General knowledge of sciences: Degree candidates will demonstrate an
 appropriate level of knowledge of the current elements of the biosciences as
 related to disciplinary specialization and a more detailed understanding of the
 individual area of scholarship, including an appropriate familiarity with the
 research literature and the ability to evaluate and critique publications, as
 measured by rubric.
- Communication skills: Degree candidates will demonstrate that an appropriate level of oral, written and visual communication skills have been acquired.
 - a. Oral communication skills: Degree candidates will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric.
 - b. Written communication skills: Degree candidates will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations as measured by rubric.
- Experimental design: Degree candidates will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement experimental protocols and to design and develop experiments as measured by rubric.

Degree requirements

In addition to the general VCU Graduate School graduation requirements, the interdisciplinary master's curriculum in molecular biology and genetics requires a minimum of 48 credit hours, at least half of which must be course work restricted to graduate students. The curriculum includes 19 credit hours of required core course work and 29 additional credit hours of required course work, directed research and research seminar course work, and additional approved course work, as listed below. M.S. candidates must pass a final oral examination. A written thesis approved by the student's graduate advisory committee completes the requirements leading to the M.S. degree.

Curriculum requirements

Courses	Credit hours
Required core courses	19
BIOC 530 Biochemistry, Cell and Molecular Biology Module 1: Protein Structure and Function*	2
BIOC 531 Biochemistry, Cell and Molecular Biology Module 2: Basic Metabolism*	1
BIOC 532 Biochemistry, Cell and Molecular Biology Module 3: Central Dogma of Molecular Biology*	1
BIOC 533 Biochemistry, Cell and Molecular Biology Module 4: Lipids/ Membranes and Bioenergetics*	1
IBMS 600 Laboratory Safety	1
IBMS 620 Laboratory/Clinical Rotations; sections 004 and 005** (two-credit course taken twice)	4
MICR/BIOC 504 Biochemistry, Cell and Molecular Biology	5
MICR 607 Techniques in Molecular Biology and Genetics	2
MICR 693 Topics in Molecular Biology and Genetics (MBG journal club, must take at least once)	1
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	1

Other required course work

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PHIS 510 Mammalian Physiology (0.5-5 credit hours for a minimum of 1 one credit hour)

Directed research and seminar

MICR 690 Microbiology Research Seminar (section 002, MBG; onecredit course) (Note: Students must take a minimum of one credit hour of research seminar course work every fall and spring semester of enrollment in the program.)

MICR 697 Directed Research in Microbiology (Note: Students must take variable a minimum of one credit hour of directed research every semester of enrollment in the program after the first year of study.)

Students may take additional course work with the approval of their graduate program directors.

Total graduate credit hours required (minimum)

- * This requirement may also be satisfied with BIOC 503 Biochemistry, Cell and Molecular Biology (five credit hours).
- ** This requirement may also be satisfied, under certain circumstances, with MICR 608 or MICR 609 Introduction to Microbiology and Immunology Research (three credit hours; section 002). Consult with the program director.

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

M.S. students in the MBG curriculum must prepare a formal written research plan and make an oral presentation of their thesis research proposals and progress reports to their graduate advisory committees prior to the beginning of the second year of residency. The student's knowledge in the area of the proposed research, current research accomplishments and the feasibility of the proposed research project will be evaluated by the GAC. Successful completion of this review is required for continuance in the program and constitutes admission to candidacy.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is

available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Pre-medical Graduate Health Sciences (Post-baccalaureate graduate certificate)

Graduate program director

Louis J. De Felice, Ph.D. Program Director ljdefelice@vcu.edu (804) 628-4853

Additional contact

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Joseph J. Feher, Ph.D. Program Adviser feher@vcu.edu (804) 828-9761

Certificate program office

premedcert@vcu.edu (804) 828-9501

Program website: medschool.vcu.edu/graduate/premed_cert

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Pre-medical Graduate Health Sciences, Certificate in (Post-baccalaureate graduate certificate)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Certificate	Fall	Jul 1	GRE, MCAT or DAT TOEFL for international students

Special requirements: While there is no official deadline for applying to the certificate program, the school strongly recommends applicants have all of materials into the graduate admissions office by July 1 to ensure that the file can be processed in time for the fall semester. The program has rolling admissions for a limited number of positions.

Applicants must meet all general admission requirements of the VCU Graduate School

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The pre-medical graduate health sciences certificate program in the School of Medicine provides an advanced level of didactic training in the biomedical sciences to enhance the preparation of students for a variety of career options,

particularly professional degree training (i.e. Ph.D., M.D. and D.D.S.). The program also provides the opportunity for the development of an informed approach to the admission process in professional and/or advanced degree training to enhance the prospect of advancement.

Student learning outcomes

- Achievement of a threshold competency in the basic health sciences: The
 candidate will achieve/surpass expectations of a threshold-level competency
 in the basic health sciences, particularly in areas related to gaining admission
 to professional and/or higher-level degree programs.
- MCAT/DAT preparation: The candidate will be prepared to take and/or retake standardized tests. The candidate will achieve a score that fulfills medical or dental school admission requirements.
- Preparation for career advancement: The candidate who meets the threshold competency objective will display an enhanced level of advancement to higher levels of professional and/or advanced degree training.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must complete a minimum of 27 graduate credit hours of course work with a minimum GPA of 3.0 (4.0 scale), with no more than 20 percent of the total credit hours at the C or below level. The curriculum is composed of six required courses (15 credit hours) and 12 elective credit hours (including for-credit research options) spread over two semesters. The curriculum should be completed in one academic year (fall and spring semester).

Required and elective courses are drawn from departments within the School of Medicine: the departments of Anatomy and Neurobiology, Biochemistry and Molecular Biology, Human and Molecular Genetics, Microbiology and Immunology, Pharmacology and Toxicology, and Physiology and Biophysics. All courses are held on the MCV Campus.

Curriculum requirements

Courses	Credit hours
Required courses	15
BIOC/MICR 504 Biochemistry, Cell and Molecular Biology	5
BIOC 530 Biochemistry, Cell and Molecular Biology Module 1: Protein Structure and Function	2
BIOC 531 Biochemistry, Cell and Molecular Biology Module 2: Basic Metabolism	1
BIOC 532 Biochemistry, Cell and Molecular Biology Module 3: Central Dogma of Molecular Biology	1
BIOC 533 Biochemistry, Cell and Molecular Biology Module 4: Lipids/Membranes and Bioenergetics	1
PHIS 501 Mammalian Physiology	5
Electives	12
ANAT 611 Histology	5
ANAT 612 Human Embryology	2
BIOL 530/HGEN 501 Human Genetics	3
BIOS/STAT 543 Statistical Methods I	3
HGEN 502 Advanced Human Genetics	3
IBMS 690 Basic Health Sciences Research Seminar (or department-specific 690 course) (Recommended for students planning to apply to the CERT/M.S. program)	1
MEDC 533 Pharmacognosy	2
MICR 505 Immunobiology	3
MICR 616 Mechanisms of Viral and Parasite Pathogens	3
NEUS 609 Cellular and Molecular Neuroscience	4
PHIS 512 Cardiac Function in Health and Disease	3
PHTX 548 Drug Dependence	3
PHTX 536 Principles of Pharmacology and Toxicology	5
XXXX 692 (department-specific topics: basic research)	3
XXXX 697 (department-specific directed research)	3

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Credit hours

Applying to professional school and advanced graduate degree programs

Students must follow admission guidelines for applications to the M.S., M.D., D.D.S. and other programs. Completion of the certificate program does not afford a guaranteed admission to professional training programs at VCU. Exceptional performance, 3.5 GPA and a 28 MCAT guarantees an interview at VCU School of Medicine. Similar criteria increase eligibility for an interview at the VCU School of Dentistry.

Research option: Upon completion of the one-year certificate program, individuals may apply for admission to advanced degree programs. Certificate students who are admitted to the M.S. degree (CERT/M.S.) will work closely with an individual faculty member on a research project in a particular department. CERT/M.S. students will choose a research seminar elective in their first year, which consists of one-time faculty presentations to inform students of research areas and laboratory opportunities. Research mentorship can begin in the first year, in conjunction with a spring or summer three-credit research rotation that counts toward the 27 credit hours required to graduate.

Advising: Students are encouraged to seek opportunities for academic, personal and professional development from the Division for Academic Success, Career Services and the CERT Program Office. For students who choose to take a year off between CERT and professional school, several School of Medicine professors hire students for research positions and area hospitals offer SCRIBE programs that actively recruit VCU graduates. The CERT Program Office can also help identify possibilities.

Letters of reference: The CERT program adviser will provide a letter of reference for professional school applications. Students must schedule an appointment to interview with the program adviser for a letter.

Public Health, Master of (M.P.H.)

Program accreditation

Council on Education for Public Health

Graduate program director

Lisa S. Anderson, M.P.H.

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Director of educational programs lsanders@vcu.edu (804) 628-2512

Additional contact

Anna P. Rose Graduate programs coordinator aprose@vcu.edu (804) 828- 9785

Program website: epidemiology.vcu.edu/education/mph

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Medicine, Doctor of (M.D.)/Public Health, Master of (M.P.H.) [combined] Pharmacy, Doctor of (Pharm.D.)/Public Health, Master of (M.P.H.) [combined] Public Health, Master of (M.P.H.)/Social Work, Master of (M.S.W.) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Public Health, Master of (M.P.H.)			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
M.P.H.	Fall	Jan 1 (strongly recommended)	GRE TOEFL

In addition to the general admission requirements of the VCU Graduate School, to be considered for admission, applicants must meet the following requirements:

- Prior degree: Students must hold a bachelor's degree from an accredited institution, with a minimum GPA of 3.0 on a 4.0 scale in all undergraduate and any other graduate study. Official copies of transcripts for all prior degrees earned must be submitted to the VCU Office of Graduate Admissions.
- 2. GRE: Current GRE test results (taken within the past five years), with scores at or above the 75th percentile preferred in all components of the exam (i.e., minimum scores of 159 quantitative, 157 verbal and 4.5 analytical writing).
- TOEFL: International students must submit TOEFL or IELTS scores.
 Minimum TOEFL score is 600 (paper-based), 250 (computer-based) or 100 (Internet-based); IELTS minimum score is 7.0. Test score requirements may be waived for international students who have received a medical degree (M.D.) in the U.S. Contact the program coordinator for more information.

Students must also submit the following materials with their applications:

- Letters of recommendation from three individuals who can assess applicant qualifications for graduate school; at least one academic reference is required, but two are preferred. Most appropriate are letters from past professors or work supervisors.
- Current version of curriculum vitae or resume. Include experience and/or education relevant to study in public health.
- 3. Personal statement following these guidelines:
 - a. The document should be 1.5 or double-spaced with one-inch margins, in a font no smaller than 11 points.
 - b. The document should cover the following issues in two to five pages:
- Description of the applicant's career goals
- Why the applicant wishes to pursue an M.P.H. degree
- How an M.P.H. degree will help the applicant achieve her/his career goals
- Description of applicant's particular areas of interest in public health (e.g., maternal and child health, cancer epidemiology)
- Why VCU's M.P.H. program best fits the student's public health interests
- What applicant plans to do in the first few years after graduation

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate

programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The mission of the VCU M.P.H. program is to engage students in an experiential and learner-centered environment, collaborate with public health partners in Central Virginia to promote health equity and community wellness and foster lifelong inquiry and discovery in interdisciplinary, translational research that improves human health.

The overall goal of the M.P.H. program is to educate students to become well-grounded in the essential knowledge, skills and attitudes of public health and demonstrate their ability to apply these essentials through course work, internships and the M.P.H. capstone project. This program is designed to provide students with the skills required to advance to positions as public health practitioners in a broad spectrum of positions and settings and who can perform the following:

- 1. Administer public health programs
- 2. Collect, analyze and evaluate public health data
- 3. Plan, implement and evaluate public health interventions
- Apply results of evaluations and data analyses to policy development as necessary
- 5. Promote public health through educational campaigns

The structure of the program provides a framework for the progressive development of a mastery of the current state of the subject matter of public health and an ability to synthesize and apply this information to the identification of key areas of practice and research in public health. Students will develop educational competencies outlined by the M.P.H. program. These competencies cover the foundational knowledge necessary for a public health practitioner to both communicate the core of public health knowledge and express the design, results and interpretation of various public health interventions, evaluations, and data collection and analysis efforts to a variety of potential audiences.

Student learning outcomes

The M.P.H. program trains students to develop the following educational competencies, selected from the Association of Schools of Public Health's "Master's Degree in Public Health Core Competency Model," August 2006.

- 1. Biostatistics:
 - a. Describe the roles biostatistics serves in the discipline of public health
 - Describe basic concepts of probability, random variation and commonly used statistical probability distributions
 - c. Describe preferred methodological alternatives to commonly used statistical methods when assumptions are not met
 - Distinguish among the different measurement scales and the implications for selection of statistical methods to be used based on these distinctions
 - Apply descriptive techniques commonly used to summarize public health data
 - f. Apply common statistical methods for inference
 - Apply descriptive and inferential methodologies according to the type of study design for answering a particular research question

- h. Apply basic informatics techniques with vital statistics and public health records in the description of public health characteristics and in public health research and evaluation
- i. Interpret results of statistical analyses found in public health studies
- j. Develop written and oral presentations based on statistical analyses for both public health professionals and educated lay audiences

11. Environmental health sciences:

- Describe the direct and indirect human, ecological and safety effects of major environmental and occupational agents
- Describe genetic, physiologic and psychosocial factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards
- Describe federal and state regulatory programs, guidelines and authorities that control environmental health issues
- d. Specify current environmental risk assessment methods
- Specify approaches for assessing, preventing and controlling environmental hazards that pose risks to human health and safety
- f. Explain the general mechanisms of toxicity in eliciting a toxic response to various environmental exposures
- g. Discuss various risk management and risk communication approaches in relation to issues of environmental justice and equity

8. Epidemiology:

- a. Identify key sources of data for epidemiologic purposes
- Describe a public health problem in terms of magnitude, person, time and place
- Explain the importance of epidemiology for informing scientific, ethical, economic and political discussion of health issues
- d. Apply the basic terminology and definitions of epidemiology
- e. Calculate basic epidemiology measures
- f. Communicate epidemiologic information to lay and professional audiences
- g. Draw appropriate inferences from epidemiologic data
- h. Evaluate the strengths and limitations of epidemiologic reports

9. Health policy and management:

- a. Identify the main components and issues of the organization, financing and delivery of health services and public health systems in the U.S.
- b. Describe the legal and ethical bases for public health and health services
- c. Discuss the policy process for improving the health status of populations

4. Social and behavioral sciences:

- Identify basic theories, concepts and models from a range of social and behavioral disciplines that are used in public health research and practice
- Identify the causes of social and behavioral factors that affect health of individuals and populations
- c. Describe steps and procedures for the planning, implementation and evaluation of public health programs, policies and interventions
- Apply evidence-based approaches in the development and evaluation of social and behavioral science interventions
- e. Apply ethical principles to public health program planning, implementation and evaluation

6. Communication and informatics:

- Describe how societal, organizational and individual factors influence and are influenced by public health communications
- Demonstrate effective written and oral skills for communicating with different audiences in the context of professional public health activities

3. Diversity and culture:

 Describe the roles of history, power, privilege and structural inequality in producing health disparities

- Explain how professional ethics and practices relate to equity and accountability in diverse community settings
- Differentiate among availability, acceptability and accessibility of health care across diverse populations

4. Leadership:

- Engage in dialogue and learning from others to advance public health goals
- b. Demonstrate transparency, integrity and honesty in all actions

3. Public health biology:

 Apply biological principles to development and implementation of disease prevention, control or management programs

Professionalism:

- Apply basic principles of ethical analysis (e.g. the Public Health Code of Ethics, human rights framework, other moral theories) to issues of public health practice and policy
- b. Apply evidence-based principles and the scientific knowledge base to critical evaluation and decision-making in public health
- c. Apply the core functions of assessment, policy development and assurance in the analysis of public health problems and their solutions
- Promote high standards of personal and organizational integrity, compassion, honesty and respect for all people
- e. Distinguish between population and individual ethical considerations in relation to the benefits, costs and burdens of public health programs
- f. Appreciate the importance of working collaboratively with diverse communities and constituencies (e.g. researchers, practitioners, agencies and organizations)

Program planning:

- Differentiate among goals, measurable objectives, related activities and expected outcomes for a public health program
- b. Differentiate the purposes of formative, process and outcome evaluation

Degree requirements

The Master of Public Health program prepares students committed to public health careers in the public, private or nonprofit sectors. Public health works to prevent health problems in populations before these problems occur. The M.P.H. program provides a rigorous curriculum to help students develop the analytic and critical reasoning skills to improve population health. The program boasts experiential learning, a highly interactive environment, accessible and approachable faculty and student involvement in important projects.

In addition to general VCU Graduate School graduation requirements, a minimum of 45 credit hours of formal course work is required, including

- 1. A practicum in year one
- An internship, typically conducted in the summer between the first and second year
- 3. A 20-hour community-based learning experience
- 4. Attendance at public health seminars in years one and two
- A capstone project planned and implemented in the second year of the program.

The M.P.H. program can be individualized to meet the varied needs and interests of students. The program offers many electives, allowing students to tailor the program to meet educational objectives, and it is flexible enough to accommodate students who enter the program with various backgrounds and experiences.

Curriculum requirements

Courses	Credit hours
Core courses	15
BIOS 547 Applied Data Analysis in Public Health I	3
EPID 571 Principles of Epidemiology	3
EPID 604 Principles of Environmental Health	3

HCPR 601 Introduction to Health Policy SBHD 605 Introduction to Social and Behavioral Health	3
Program requirements BIOS 548 Applied Data Analysis in Public Health II EPID 547 Applied Data Analysis Lab I EPID 548 Applied Data Analysis Lab II EPID 580 Public Health Ethics EPID 593 MPH Practicum	9 3 1.5 1.5 1 2
Electives Students take a minimum of 15 credit hours of elective course work selected according to the area(s) of interest in public health. These may include the following courses:	15
BIOS 571 Clinical Trials EPID 600 Introduction to Public Health EPID 601 Contemporary Issues and Controversies in Public	3 3 3
Health EPID 603 Public Health Policy and Politics EPID 620 Cancer Epidemiology EPID 622 Maternal and Child Health	3 3 3
EPID 624 Chronic Disease Epidemiology EPID 646 Epidemiology of Psychiatric and Substance Use Disorders	3
EPID 648 Behavioral Epidemiology SBHD 608 Health Communication SBHD 632 Health Disparities and Social Justice SBHD 636 Community-based Participatory Research	3 3 3 3
Integrative program requirements EPID 693 Public Health Internship EPID 694 MPH Capstone Project	6 3 3
Total graduate credit hours required (minimum)	45

Public health internship: The public health internship is a supervised experience designed to expose M.P.H. students to a real-world public health practice setting, such as a governmental public health agency or nonprofit organization, requiring them to integrate classroom knowledge and skills in practical applications in a professional environment. Each student intern works with a practice site supervisor who assigns tasks, instructs the student in new skills and evaluates the student's progress. Students work a minimum of 180 hours in a professional public health organization.

Capstone project: The culminating work in the M.P.H. program is the capstone project. The project is a practical experience that allows the student to apply what has been learned in the didactic components of the curriculum to a focused project. The goal is to enhance the student's academic experience through the application of public health concepts and skills in a supervised experience. Students are required to synthesize the literature; analyze, assess or evaluate quantitative or qualitative data; and in general apply theory and integrate knowledge gained and principles in situations that approximate some aspects of professional practice. With this mentored experience, students are able to both broaden their skills and hone their proficiency in a specific area of public health. The major product of this culminating experience is expected to vary depending on the educational goals of the student, but could include one of the following:

- 1. Manuscript suitable for publication in a peer-reviewed journal
- 2. Comprehensive disease-related report
- 3. Policy analysis report
- Health promotion materials (e.g., brochures/posters/fliers, educational video games, website content, etc.) on a specific disease area
- 5. Needs assessment for a specific population
- 6. Development and implementation of target population surveys
- 7. Program evaluation

At a minimum, the capstone experience will require the integration of multiple major competencies used by a public health professional. In fulfilling the capstone requirement, each candidate must: (a) submit a formal written paper of sufficient depth and rigor and (b) satisfactorily complete a poster presentation of the project chosen as the basis for the written paper at an appropriate venue (e.g., research forum, refereed conference, etc.) approved by the M.P.H. program director.

Non-didactic program requirements

In addition to course work, students are required to complete the following noncurricular requirements for the M.P.H. degree:

- 1. Attendance at 12 public health seminars
- 2. Twenty hours of community-based service-learning

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

The M.P.H. program student handbook is available upon request.

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Pharmacy, Doctor of (Pharm.D.)/Public Health, Master of (M.P.H.) [combined]

Graduate program directors

Lisa Anderson, M.P.H.

Director of educational programs, Division of Epidemiology, Department of Family Medicine and Population Health

lsanders@vcu.edu

(804) 628-2512

Amy Pakyz, Pharm.D., M.S., Ph.D.

Associate professor, Department of Pharmacotheraphy and Outcomes Science apakyz@vcu.edu

(804) 828-6027

Program website: pharmacy.vcu.edu and familymedicine.vcu.edu/education/graduate/dual-degrees

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacotherapy

Pharmacology and Toxicology, Master of Science (M.S.)

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)

Pharmacy, Doctor of (Pharm.D.)

Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) [combined]

Pharmacy, Doctor of (Pharm.D.)/Business Administration, Master of (M.B.A.) [combined]

Pharmacy, Doctor of (Pharm.D.)/ Master of Science (M.S.) [combined]

Apply online at graduate.admissions.vcu.edu.

The School of Pharmacy and the Division of Epidemiology in the Department of Family Medicine and Population Health in VCU's School of Medicine offer a dual-degree program through which students earn both Pharm.D. and M.P.H. degrees. This dual-degree program offers students the opportunity to achieve a Doctor of Pharmacy while also learning about research and the importance of population health. This five-year program requires students to spend the fourth year of the Pharm.D. program pursuing the M.P.H. degree, after which they transition back to pharmacy for advanced practice experiences.

Students are required to take 36 of the 45 credits required for the M.P.H. The M.P.H. field study (internship) requirement will be satisfied by Pharm.D. special advanced practice experiences in community health during the fifth year of the program.

Students complete two credits of practical skills work during the P3 year, followed by full immersion in the M.P.H. curriculum in the P4 year. The required M.P.H. capstone project will be completed in a community setting during the P5 year; it will involve a comprehensive project that serves the needs of a professional public health organization and typically involves the development of one or more deliverables. Examples include a disease surveillance project, a needs assessment or program evaluation, or development of a comprehensive suite of patient health education or medication safety materials.

Refer to the program search function of the online VCU Bulletins for a complete description of the curriculum for both programs.

Curriculum requirements

Courses Credit hours

M.P.H. courses	36
Required	
BIOS 547 Applied Data Analysis in Public Health I	3
BIOS 548 Applied Data Analysis in Public Health II	3
EPID 547 Applied Data Analysis Lab I	1.5
EPID 548 Applied Data Analysis Lab II	1.5
r · · · · · · · · · · · · · · · · · · ·	3
EPID 580 Public Health Ethics	1
	2
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	9
Students take a minimum of nine credit hours of elective course work	
selected according to an area(s) of interest in public health. These may include the following courses.	
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1 23	3
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1 63 3	3
1 65	3
	3
•	3
Pharm.D. courses	155
IPEC 501 Foundations of Interprofesional Practice	1
IPEC 502 Interprofesional Quality Improvement and Patient Safety	1
MEDC 527 Basic Pharmaceutical Principles for the Practicing Pharmacist	
	2
MEDC 542 Biotechnology-derived Therapeutic Agents	1
	2
MEDC 553 Clinical Therapeutics Module: Introduction to Medicinal Chemistry	1
•	3
*	3
	3
*	2
**	2
Information Skills	_
PHAR 513 Contemporary Pharmacy Practice	2
PHAR 523 Foundations I	1.5
PHAR 524 Foundations II	1.5
PHAR 526 Community Pharmacy Practice	2
PHAR 529 Clinical Therapeutics Module: Introduction to Special	2
Populations	
	4
Practice	
	_
PHAR 532 Introductory Pharmacy Practice Experience: Hospital Practice	
PHAR 533 Introductory Pharmacy Practice Experience: Service-learning	0.5
PHAR 533 Introductory Pharmacy Practice Experience: Service-learning PHAR 534 Foundations III	0.5 1
PHAR 533 Introductory Pharmacy Practice Experience: Service-learning PHAR 534 Foundations III PHAR 535 Foundations IV	0.5 1 1
PHAR 533 Introductory Pharmacy Practice Experience: Service-learning PHAR 534 Foundations III PHAR 535 Foundations IV PHAR 540 Self-Care and Alternative and Complementary Treatments	0.5 1 1 3
PHAR 533 Introductory Pharmacy Practice Experience: Service-learning PHAR 534 Foundations III PHAR 535 Foundations IV PHAR 540 Self-Care and Alternative and Complementary Treatments PHAR 541 Patient Assessment in Pharmacy Practice	0.5 1 1 3 2
PHAR 533 Introductory Pharmacy Practice Experience: Service-learning PHAR 534 Foundations III PHAR 535 Foundations IV PHAR 540 Self-Care and Alternative and Complementary Treatments PHAR 541 Patient Assessment in Pharmacy Practice PHAR 543 Scholarship I	0.5 1 1 3 2
PHAR 533 Introductory Pharmacy Practice Experience: Service-learning PHAR 534 Foundations III PHAR 535 Foundations IV PHAR 540 Self-Care and Alternative and Complementary Treatments PHAR 541 Patient Assessment in Pharmacy Practice PHAR 543 Scholarship I PHAR 544 Clinical Therapeutics Module: Cardiovascular	0.5 1 1 3 2 1 4.5
PHAR 533 Introductory Pharmacy Practice Experience: Service-learning PHAR 534 Foundations III PHAR 535 Foundations IV PHAR 540 Self-Care and Alternative and Complementary Treatments PHAR 541 Patient Assessment in Pharmacy Practice PHAR 543 Scholarship I PHAR 544 Clinical Therapeutics Module: Cardiovascular	0.5 1 1 3 2

PHAR 549 Biotechnology, Pharmacogenomics and Pharmacogenetics	2
PHAR 550 Scholarship II	2
PHAR 555 Clinical Therapeutics Module: Endocrinology	2.5
PHAR 556 Clinical Therapeutics Module VI: Neurology I	4
PHAR 565 Evidence-based Pharmacy II: Research Methods and Statistics	2.5
PHAR 566 Evidence-based Pharmacy III: Drug Literature Evaluation	2
PHAR 602 Clinical Therapeutics Module: Psychiatry	3
PHAR 603 Clinical Therapeutics Module: Respiratory/Immunology	3
PHAR 604 Clinical Therapeutics Module: Infectious Diseases	4.5
PHAR 605 Clinical Therapeutics Module: Hematology/Oncology	2.5
PHAR 606 Clinical Therapeutics Module: Nephrology/Urology	2
PHAR 607 Clinical Therapeutics Module: Dermatology, EENT	1.5
PHAR 618 Clinical Therapeutics Module: Gastrointestinal/Nutrition	2.5
PHAR 619 Clinical Therapeutics Module: Women's Health/Bone and	2.5
Joint	
PHAR 620 Clinical Therapeutics Module: Critical Care/Toxicology	1.5
PHAR 621 Pharmacoeconomics	2
PHAR 622 Epidemiology and Pharmacy Practice	2
PHAR 640 Foundations V	1
PHAR 645 Foundations VI	1
PHAR 652 Health Promotion and Communication in Pharmacy Practice	2
PHAR 660 Community Pharmacy Practice Management II	2
PHAR 661 Institutional Pharmacy Management	2
PHAR 721 Clinical Therapeutics Module: Integrated Medication	1
Management	
PHAR 724 Pharmacy Law	2.5
PHAR 760 Acute Care Pharmacy Practice I	5
PHAR 761 Advanced Hospital Pharmacy Practice	5
PHAR 762 Geriatrics Pharmacy Practice	5
PHAR 763 Ambulatory Care Pharmacy Practice	5
PHAR 765 Elective I	5
PHAR 766 Elective II	5
PHAR 768 Advanced Community Pharmacy Practice	5
PHAR 771 Student Pharmacist Professionalism	1
PHAR 773 Acute Care Pharmacy Practice II	5
PHTX 606 Clinical Therapeutics Module: Introduction to Pharmacology	1
(Pharmacy)	
Electives	4

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Public Health, Master of (M.P.H.)/Social Work, Master of (M.S.W.) [combined]

Program accreditation

Council on Education for Public Health (M.P.H.) Council on Social Work Education (M.S.W.)

Graduate program directors

Lisa S. Anderson, M.P.H.

Director of educational programs, Master of Public Health program lsanders@vcu.edu

(804) 628-2512

Sarah K. Price, Ph.D.

M.S.W./M.P.H. combined program coordinator

skprice@vcu.edu

(804) 828-0579

Additional contact

Anna P. Rose

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 $\label{lem:condinator} Graduate\ Programs\ Coordinator,\ Master\ of\ Public\ Health\ program\ aprose@vcu.edu$

(804) 828- 9785

Program websites: epidemiology.vcu.edu/education/mph/dual and socialwork vcu edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Public Health, Master of (M.P.H.)

Social Work, Doctor of Philosophy (Ph.D.)

Social Work, Master of (M.S.W.) with a concentration in clinical practice

Social Work, Master of (M.S.W.) with a concentration in administration, planning and policy practice

Social Work, Master of (M.S.W.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Gender Violence Intervention, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/school social work practice certification [combined]

Social Work, Master of (M.S.W.)/Juris Doctor (J.D.) with the University of Richmond [combined]

Social Work, Master of (M.S.W.)/Divinity, Master of (M.Div.) from the Baptist

Theological Seminary at Richmond or the Samuel DeWitt Proctor School of Theology at Virginia Union University [combined]

Apply online at graduate.admissions.vcu.edu.

Through a collaborative program between the VCU School of Social Work and the Division of Epidemiology in the School of Medicine's Department of Family Medicine and Population Health, students complete a three-year full-time program of study, including summer course work, to obtain the Master of Social Work and Master of Public Health degrees. The purpose of this dual-degree program is to prepare graduates to work with individuals, families, groups, communities and/or organizations; advocate for social, health care and economic justice in a diverse and multicultural society; and promote physical and mental health across the life course.

Prospective students are required to apply separately to both programs through the Graduate Admissions Office and must meet both sets of admission requirements. Once admitted to both programs, the student is assigned an adviser from each to develop a plan of study, typically starting with the M.S.W. course work. It is preferable that students apply to both programs at the same time so that the structured dual-degree curriculum can be optimally planned. Students in one program may also apply to the second program during the first year of study.

Students are required to complete a minimum of 45 M.S.W. credit hours and a minimum of 33 M.P.H. credit hours, for a total of 78 semester credit hours. In the M.P.H. program, this includes 24 credit hours of core and required courses, a minimum six credit hours of elective courses and a minimum of three credit hours of a capstone project that examines a relevant public health topic. During the third and last year of study, dual-degree students are placed in internships through the School of Social Work that focus on public health; the internship placement is approved by both the M.P.H. program director and the director of the M.S.W. field instruction. With adviser approval, the student may develop a capstone project based on work in this public health/social work placement.

Refer to the program search function for specific admission requirements, application deadlines, program goals, student learning outcomes, degree requirements and graduation requirements for the stand-alone M.P.H. and M.S.W. degrees.

Curriculum requirements

Courses	Credit hours
BIOS 547 Applied Data Analysis in Public Health I	3
BIOS 548 Applied Data Analysis in Public Health II	3
EPID 547 Applied Data Analysis Lab I	1.5
EPID 548 Applied Data Analysis Lab II	1.5
EPID 571 Principles of Epidemiology	3
EPID 580 Public Health Ethics	1
EPID 593 MPH Practicum	1
EPID 604 Principles of Environmental Health	3
EPID 694 MPH Capstone Project	1-3
HCPR 601 Introduction to Health Policy	3
SBHD 605 Introduction to Social and Behavioral Health	3
SLWK 601 Human Behavior in the Social Environment I	3
SLWK 602 Policy, Community and Organizational Practice I	3
SLWK 603 Social Work and Social Justice	3
SLWK 604 Social Work Practice with Individuals, Families and Groups I	3
SLWK 605 Social Work Practice with Individuals, Families and Groups II	3
SLWK 606 Policy, Community and Organizational Practice II	3
SLWK 609 Foundations of Research in Social Work Practice	3
SLWK 610 Human Behavior in the Social Environment II	3
SLWK 693 Foundation Field Instruction I	3
SLWK 694 Foundation Field Instruction II	3
Concentration courses	9
Students in M.S.W. clinical concentration:	
SLWK 703 Mental, Emotional and Behavioral Disorders and	

SLWK 704 Clinical Social Work Practice I and SLWK 705 Clinical Social Work Practice II Students in M.S.W. SWAPPP concentration: SLWK 711 Strategies for Social Work Planning and Administrative Practice and SLWK 712 Social Work Planning and Administration Practice I and SLWK 713 Social Work Planning and Administrative Practice II SLWK 793 Concentration Field Instruction 3 SLWK 794 Concentration Field Instruction 3 Electives Students take a minimum of six graduate credit hours of elective course work from the following courses: 3 **BIOS 571 Clinical Trials** EPID 600 Introduction to Public Health 3 EPID 601 Contemporary Issues and Controversies in Public Health 3 EPID 603 Public Health Policy and Politics 3 EPID 620 Cancer Epidemiology 3 EPID 622 Maternal and Child Health 3 EPID 624 Chronic Disease Epidemiology 3 EPID 646 Epidemiology of Psychiatric and Substance Use Disorders EPID 648 Behavioral Epidemiology 3 3 SBHD 632 Health Disparities and Social Justice 3 SBHD 636 Community-based Participatory Research

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

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Total graduate credit hours required (minimum) for combined

M.P.H./M.S.W.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Rehabilitation and Movement Science, Doctor of Philosophy (Ph.D.) with a concentration in exercise physiology

Graduate program director

Ronald K. Evans, Ph.D.

Associate professor and director of graduate studies, Department of Kinesiology and Health Sciences

rkevans@vcu.edu (804) 828-1948

Additional contact

Sheryl D.G. Finucane, Ph.D., P.T.

Assistant professor and graduate program director, Department of Physical Therapy

sfinucan@vcu.edu (804) 828-0234

Program website: sahp.vcu.edu/pt/prospective/phd/rehabmovement.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Rehabilitation and Movement Science, Doctor of Philosophy (Ph.D.) with a concentration in neuromusculoskeletal dynamics

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements:
Ph.D.	entry:		GRE
	Fall preferred	Applications receiv prior to Jan 9 will b given priority consideration	

In addition to the general admission requirements of the VCU Graduate School, applicants must:

- Have completed at least one of a master's degree in a related area, 30 hours of post-baccalaureate work (e.g. course work at 500 level or greater) or a first-professional degree program
- 2. Provide official GRE score

available.

3. Submit a curriculum vitae or professional resume indicating an applicant's educational and career experience as well as evidence of research potential

Admission decisions are made only on the basis of a completed application packet.

Applicants being considered for admission must complete an interview with a Ph.D. admissions committee representative and/or research faculty member with whom the student would like to work.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Ph.D. in Rehabilitation and Movement Science is an interdisciplinary degree program developed through a collaborative partnership of the departments of Kinesiology and Health Sciences, Physical Therapy, and Physical Medicine and Rehabilitation. The mission of this collaborative degree program is to prepare applied scientists capable of approaching multifaceted health care, preventive medicine and rehabilitation initiatives from an integrative perspective and to prepare graduates to assume research, teaching and leadership positions within rehabilitation and movement science professions.

There are two program concentrations: exercise physiology and neuromusculoskeletal dynamics. The exercise physiology concentration prepares individuals to conduct research, direct external funding initiatives and teach in the area of exercise physiology, with particular focus on physical activity's impact on chronic disease states. The neuromusculoskeletal dynamics concentration prepares individuals for research, teaching and clinical initiatives associated with the identification and rehabilitation of movement disorders.

Student learning outcomes

At the completion of the program students will:

- Demonstrate teaching effectiveness in the classroom, clinical environment or both
- Have disseminated research findings at an appropriate regional, national or international conference
- Demonstrate the ability to independently collect research data, analyze research data and synthesize conclusions from research data

Degree requirements

In addition to general VCU Graduate School graduation requirements, students pursuing the Ph.D. in Rehabilitation and Movement Science must successfully complete:

- 1. A minimum of 50 credit hours developed in conjunction with their advisers
- 2. Written and oral comprehensive examinations
- 3. All other university requirements of qualification for degree candidacy
- 4. Written dissertation based on a focused line of research
- 5. Oral defense of the dissertation

Curriculum requirements

Courses

Credit hours

Research core courses	12
ALHP 761 Health Related Sciences Research Design or EDUS 710	3
Educational Research Design or HADM 761 Health Services Research	
Methods I or HEMS 600 Introduction to Research Design in Health and	
Movement Sciences	
STAT/BIOS 543 Statistical Methods I	3
STAT/BIOS 544 Statistical Methods II	3
One additional research design class from above or one of the following: ALHP 716 Grant Writing and Project Management in Health Related	3
Sciences or BIOS 531 Clinical Epidemiology or BIOS 553 Linear	
Regression or BIOS 571 Clinical Trials or BIOS 572 Statistical Analysis of Biomedical Data	
of biofficultate Data	
Core concentration	18
PHIS 501 Mammalian Physiology	3
REMS 701 Advanced Exercise Physiology I	3

Laboratory rotations
REMS 710 Research Techniques in Rehabilitation and Movement Science 3

REMS 703 Cardiovascular Exercise Physiology or REMS 704

Physical Activity

Approved electives (from list below)

Psychobiology of Physical Activity or REMS 705 Metabolic Aspects of

1	
Professional development course work	5
REMS 690 Research Seminar in Rehabilitation and Movement Science	3
REMS 793 Teaching Practicum in Higher Education	1
REMS 794 Research Presentation Seminar	1
Dissertation research	12
REMS 798 Research in Rehabilitation and Movement Science	12

Total graduate credit hours required (minimum)

Approved electives	
BIOL 524 Endocrinology	3
HEMS 610 Laboratory Techniques in Rehabilitation Science	3

HEMS 610 Laboratory Techniques in Rehabilitation Science	3
HEMS 675 Clinical Exercise Physiology	3
PHTX 614 Foundation in Psychoneuroimmunology	3
REMS/HEMS 660 Neuromuscular Performance	3
REMS 702 Advanced Exercise Physiology II	3
REMS 703 Cardiovascular Exercise Physiology	3
REMS 704 Psychobiology of Physical Activity	3
REMS 705 Metabolic Aspects of Physical Activity	3

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Graduation requirements



Rehabilitation and Movement Science, Doctor of Philosophy (Ph.D.) with a concentration in neuromusculoskeletal dynamics

Graduate program director

Sheryl D.G. Finucane, Ph.D., P.T.

Assistant professor and graduate program director, Department of Physical Therapy

sfinucan@vcu.edu (804) 828-0234

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Additional contact

Ronald K. Evans, Ph.D.

Associate professor and director of graduate studies, Department of Kinesiology and Health Sciences

rkevans@vcu.edu (804) 828-1948

Program website: sahp.vcu.edu/pt/prospective/phd/rehabmovement.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Rehabilitation and Movement Science, Doctor of Philosophy (Ph.D.) with a concentration in exercise physiology

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements
Ph.D.	entry:		GRE
	Fall preferred	Applications received	i
		prior to Jan 9 will be	
		given priority	
		consideration	

Applications received following the deadline may be considered if space and resources are available.

In addition to the general admission requirements of the VCU Graduate School, applicants must:

- Have completed at least one of a master's degree in a related area, 30 hours of post-baccalaureate work (e.g. course work at 500 level or greater) or a first-professional degree program
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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

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Student learning outcomes

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- Demonstrate teaching effectiveness in the classroom, clinical environment or both
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- 3. All other university requirements of qualification for degree candidacy
- 4. Written dissertation based on a focused line of research
- 5. Oral defense of the dissertation

Curriculum requirements

Courses Credit hours

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STAT/BIOS 543 Statistical Methods I	3
STAT/BIOS 544 Statistical Methods II	3
One additional research design class from above or one of the following: ALHP 716 Grant Writing and Project Management in Health Related Sciences or BIOS 531 Clinical Epidemiology or BIOS 553 Linear Regression or BIOS 571 Clinical Trials or BIOS 572 Statistical Analysis of Biomedical Data	3
Core concentration	18
REMS/HEMS 611 Biomechanics of Human Motion	3
REMS/HEMS 660 Neuromuscular Performance	3
REMS 665 Instrumentation in Motion Analysis	3
Approved electives (from list below)	9
Laboratory rotations	3
REMS 710 Research Techniques in Rehabilitation and Movement Science	: 3
Professional development course work	5
REMS 690 Research Seminar in Rehabilitation and Movement Science	3
REMS 793 Teaching Practicum in Higher Education	1
REMS 794 Research Presentation Seminar	1
Dissertation research	12
REMS 798 Research in Rehabilitation and Movement Science	12
Total graduate credit hours required (minimum)	50
Approved electives	
EPID 622 Maternal and Child Health	3
PSYC 603 Developmental Processes	3
PSYC 614 Infant Growth and Development	3
REMS/PHTY 608 Advanced Musculoskeletal Sciences	3
REMS/PHTY 612 Advanced Biomechanics	3
REMS 692 Independent study	3

Degree candidacy requirements

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Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Social and Behavioral Health, Doctor of Philosophy (Ph.D.)

Graduate program director

Kellie E. Carlyle, Ph.D., M.P.H. Assistant professor, Department of Social and Behavioral Health kecarlyle@vcu.edu (804) 628-4623

Additional contact

Whitney Christake, M.A. Educational coordinator awchristake@vcu.edu (804) 628-4629

Program website: behavioralhealth.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Social and Behavioral Health, Doctor of Philosophy (Ph.D.)				
Degree: Semester(s) Deadline Test				
	of entry:	dates:	requirements:	
Ph.D.	Fall	Jan 9	GRE	
Special requir	ements: M.P.H. or equiva	alent M.A. or M.S. de	gree	

Applicants must meet all general admission requirements of the VCU Graduate School.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

Training to be social and behavioral scientists

Students in the doctoral program in social and behavioral health will acquire the skills to become scientists, educators and scientists/administrators in a broad spectrum of positions and settings. Students will gain a progressive mastery of the current state of the subject matter in the social and behavioral sciences, an ability to synthesize the information and apply this foundation to the identification of key areas of investigation/experimentation and the ability to design and interpret studies that address the questions identified. In addition, students will develop the

various means of communicating core social and behavioral science knowledge and particular study designs, results and interpretations to a variety of audiences.

Student learning outcomes

- Analytical thinking: Students will demonstrate an appropriate level of ability
 to interpret information relevant to social and behavioral science, to connect
 rationales to procedures and evidence to findings, to draw reasonable
 conclusions, and to generate and evaluate alternate explanations.
- 2. Integrated knowledge of social and behavioral science: Students will demonstrate an appropriate level of knowledge of the current elements of the social and behavioral sciences as related to disciplinary specialization and a more detailed understanding of the individual area of scholarship, including an appropriate familiarity with the research literature and the ability to evaluate and critique.
- Oral communication skills: Students will demonstrate the achievement of an
 appropriate level of skill in the oral communication of social and behavioral
 science subject matter with respect to content, organization, logical flow,
 presentation, use of language and incorporation of visual aids in formal and
 collaborative communication.
- Study design: Students will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify and/or create, and implement study protocols and to design and develop studies.
- 5. Written communication skills: Students will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling, vocabulary and use of figures, tables and citations to effectively present social and behavioral science information.

Degree requirements

The Ph.D. program in social and behavioral health, the only one of its kind in Virginia, prepares students to conduct theoretically based research and interventions on the social and behavioral determinants of health and disease. In addition to the general VCU Graduate School graduation requirements, a minimum of 50 post-master's credit hours is required for the doctoral degree, which is expected to involve four years of full-time study. Requirements include 12 credit hours of courses in research methods, nine credit hours of courses in the behavioral and social sciences, one credit hour of responsible conduct of research, four credit hours of departmental seminar and at least six credit hours of elective courses that reflect a student's research interests. In addition, required research experience includes nine hours of applied research practicum and nine dissertation credit hours. Students who work as graduate research assistants for two years may substitute some or all of the nine credit hours of applied research practicum with electives.

Curriculum requirements

Courses	Credit hours
Core requirements	32
BIOS/STAT 543 Statistical Methods I	3
BIOS/STAT 544 Statistical Methods II	3
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	1
SBHD 638 Applications in Qualitative Research Methods	3
SBHD 690 Departmental Seminar (one-credit course taken four times)	4
SBHD 693 SBHD Internship (variable credits)	9
SBHD 697 Directed Research in Social and Behavioral Health (variable credit course)	9 (minimum)
Required electives	9
SBHD 610 Behavioral Measurement	3
SBHD 630 Theoretical Foundations of Social and Behavioral Health	3
SBHD 637 Program Evaluation	3
Additional electives	9

Any graduate-level course(s) approved by adviser	6
Additional SBHD course	3

Total graduate credit hours required (minimum)

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

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Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on doctoral programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30114.



2014-15 Graduate and Professional Programs Bulletin

School of Nursing

The School of Nursing originated in 1893 as part of the University College of Medicine. Since then, the educational program has evolved from a basic diploma program to multiple programs at the baccalaureate-, master's- and doctoral-degree levels. Additionally, the School of Nursing offers post-master's certificate programs. The School of Nursing takes pride in its long history of service to the profession of nursing and continues to be a leader in nursing education in Virginia.

Administration

1100 East Leigh Street P.O. Box 980567 Richmond, Virginia 23298-0567 (804) 828-0724 Fax: (804) 828-7743

www.nursing.vcu.edu

Jean Giddens

Dean

Ann B. Hamric

Associate Dean for Academic Programs

Deborah B. McGuire

Associate Dean for Research

David W. Allen

Associate Dean for Business and Administration

Susan L. Lipp

Assistant Dean for Enrollment and Student Services

Suzanne McGinnis

Director of Systems and Academic and Administrative Technology

Carla Nye

Director of the Clinical Learning Center

Accreditation

The baccalaureate and master's degree programs in nursing, as well as the post-master's certificate program, are accredited by the National League for Nursing Accrediting Commission, 3343 Peachtree Road NE, Suite 500, Atlanta, GA 30326. The undergraduate program is approved by the Virginia Board of Nursing, and graduates are eligible to take the NCLEX RN registered nurse licensing examination.

Programs

The School of Nursing offers Bachelor of Science, Master of Science, Post-Master's Certificate and Doctor of Philosophy programs. Curricula and admissions information pertaining to all of these programs is available on this Web site and may be accessed using the Program search feature at the top of this page.

Further information may be obtained by visiting the School of Nursing Web site at www.nursing.vcu.edu or by writing to Virginia Commonwealth University, School of Nursing, Office of Enrollment and Student Services, P.O. Box 980567, Richmond, VA 23298-0567.

Facilities and resources

The faculty and administrative offices of the school are housed at 1100 E. Leigh St. Additionally, this building has a nursing clinical resource laboratory, computer laboratory and classrooms equipped with a full range of audiovisual equipment. Both graduate and undergraduate courses are also scheduled in other classrooms on campus.

The clinical laboratories for nursing courses are conducted at the VCU Medical Center and in numerous other urban and rural hospitals and health agencies in the area, including community medical centers and state hospitals, public health services, private clinics and offices, and federal and state centers and departments. These facilities provide generalized and specialized inpatient and ambulatory services. Students are given a range of diverse experiences in hospital and community-oriented nursing. Selection of specific facilities for student experience is based upon curricular and advanced-practice certification requirements, the educational needs of the individual student and the services available.

School honors, scholarships and awards

Applications for financial assistance must be filed for all forms of financial assistance, including traineeships. A Free Application for Federal Student Aid may be obtained from the Office of Financial Aid, Virginia Commonwealth University, Richmond, VA 23298-0244.

Limited financial assistance is available through traineeships and scholarships administered by the School of Nursing. An application for financial assistance from School of Nursing sources will be made available to applicants and enrolled students. The school form must be completed in addition to the FAFSA submitted to the Office of Financial Aid.

Departments

Department of Adult Health and Nursing Systems

Angela Starkweather

Associate Professor and Department Chair

Department of Family and Community Health Nursing

Leigh Small

Associate Professor and Department Chair

Nursing courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to nursing (NURS) courses.

Graduate information

Nondegree-seeking students

Students who have not been admitted to a graduate program in nursing may be admitted to individual courses. Permission to register for courses is granted at the discretion of the School of Nursing. Only six credits earned as a nondegree-seeking student can be applied to the master's degree. Only three credits may be earned by post-master's students prior to admission.

Enrollment

Students may begin study during the fall semester. Students will have an academic adviser appointed and will follow the standard program of study. Once admitted, students are expected to abide by enrollment policies of the Graduate School.

Transfer credit

Students may take 12 of the required credits for the respective program at another institution and transfer them to VCU. The School of Nursing will determine the acceptability of courses for transfer credit. Transcript evidence and description of courses are required for review of transfer credit.

Nursing, Certificate in (Post-master's certificate) with a concentration in adult-gerontology acute care nurse practitioner

Program accreditation

Accreditation Commission for Education in Nursing

Graduate program director

Ann B. Hamric, Ph.D., R.N., F.A.A.N. Professor and associate dean of academic programs abhamric@vcu.edu (804) 828-3968

Additional contact

Susan L. Lipp, M.S.N., R.N.
Assistant dean for enrollment and student services slipp@vcu.edu
(804) 828-5171

Program website: nursing.vcu.edu/education/postmasters.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Nursing, Certificate in (Post-master's certificate) with a concentration in adultgerontology primary care nurse practitioner

Nursing, Certificate in (Post-master's certificate) with a concentration in family nurse practitioner

Nursing, Certificate in (Post-master's certificate) with a concentration in nursing administration and leadership

Nursing, Certificate in (Post-master's certificate) with a concentration in psychiatric-mental health nurse practitioner

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Nursing, Certificate in (Post-master's certificate) with a concentration in adult- gerontology acute care nurse practitioner				
Degree: Certificate	Semester(s) of entry: Fall	Deadline dates: Mar 15	Test requirements: None	
Special require A personal inter	ments: view may be requested.			

In addition to the general admission requirements of the VCU Graduate School, applicants must:

- Have a master's or doctoral degree in nursing from a U.S. program accredited by ACEN or CCNE or an international equivalent [Applicants to the postmaster's certificate nurse practitioner concentrations must hold a master's or doctoral degree as an advanced practiced registered nurse (NP or CNS) from an accredited (ACEN or CCNE) program.]
- 2. Have a current unencumbered R.N. license or an authorization to practice as an R.N. in Virginia, the District of Columbia or a U.S. possession or territory
- Submit three references from the applicant's graduate program and from employers/supervisors
- Complete the electronic submission of the online VCU Graduate Application, School of Nursing supplemental application materials and all required documents by the listed deadline

Note: A personal interview may be requested.

When an individual is admitted, an evaluation of the transcript is completed. Each required course in the relevant concentration is compared to the entering student's transcript. Upon admission, the school determines whether those course objectives have been fully or partially met in prior master's or doctoral work. Prior courses that are accepted as evidence of full or partial completion are listed on the individual plan of study. This plan will be signed by the entering student and the adviser before the individual actually enrolls. Thus, the plan of study is agreed upon in advance.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The mission of the School of Nursing is to improve health and the human condition through leadership in nursing research, education and service. Therefore we will:

- Sustain our tradition of leadership in educational excellence by preparing future scholars and leaders for nursing and health care
- 2. Be a nationally influential center in the development, translation and dissemination of science in biobehavioral clinical research
- 3. Be a national model for collaboration and partnerships between nursing education and nursing service in academic medical centers
- Be a national model for clinical scholarship (development and dissemination) in the use of simulation, technology and innovation for best practices in education and practice
- Provide services that benefit the profession and promote the health and wellbeing of diverse individuals, families and communities

Ranked in the top 10 percent of graduate nursing programs by U.S. News and World Report, the VCU School of Nursing post-master's degree program provides a world-class learning experience that prepares nurses to become leaders in advanced nursing practice. The post-master's program provides nurses with a solid foundation in the specialized knowledge and advanced practice skills that are needed to care for diverse patient populations with complex health problems across the health-illness continuum. In addition, students partner with interprofessional groups to develop expertise in team-based, patient-centered health care, while also gaining valuable leadership and collaborative skills. The curriculum at VCU prepares graduates who can engage in transformative nursing, not only as leaders who are committed to nursing excellence, but also as practitioners who are committed to the health and well-being of the patients they serve.

VCU School of Nursing offers both direct and indirect patient care concentrations. Our direct patient care concentrations include adult-gerontology acute care NP, adult-gerontology primary care NP, family NP, and psychiatric-mental health NP. One indirect patient care concentration is offered in nursing administration and leadership.

Student learning outcomes

Graduates will achieve advanced nursing practice competencies by demonstrating:

- 1. Systems and organizational leadership
- 2. Implementation of advanced nursing practice interventions
- 3. Effective use of research and technology
- 4. Systematic evaluation of interventions and outcomes

Graduates will be able to:

- 1. Demonstrate core competencies in their advanced practice specialties
- 2. Integrate nursing and related sciences into the delivery of advanced nursing care to diverse populations and systems of health care delivery
- Apply ethical analysis and clinical reasoning to assess, intervene and evaluate advanced nursing care delivery
- Understand the implications of social, cultural, economic, policy and organizational systems that impact practice and outcomes
- Synthesize evidence for practice to determine appropriate application of interventions across diverse populations and settings
- Use quality processes and improvement science to evaluate care and ensure patient safety for individuals, populations and systems
- Integrate organizational science and technology to make changes in the care environment to improve health outcomes and practice efficiency

Adult-gerontology acute care nurse practitioner concentration

Students in the adult-gerontology acute care nurse practitioner concentration will develop the advanced knowledge and skills needed to manage acutely ill patients through all phases of their hospitalization and post-hospitalization follow-up. Students learn to manage patients through comprehensive physical and psychosocial assessments, use of decision-making/diagnostic reasoning processes, performance of advanced practice skills and procedures, and implementation of

evidence-based treatment strategies. Graduates of the VCU School of Nursing ACNP concentration are prepared to diagnose and manage complex health problems of adults across the life span, including acute/critical illness and injuries, as well as exacerbations of chronic conditions.

The adult-gerontology acute care nurse practitioner generally works in an acute care setting, often within a multidisciplinary team focused on the provision of evidence-based care to adults who are acutely ill. The sphere of influence of the nurse practitioner is that of the patient.

Degree requirements

Twenty-six graduate credit hours are required for the post-master's certificate in nursing with a concentration in adult-gerontology acute care nurse practitioner.

In addition to general VCU Graduate School graduation requirements, a candidate for the degree of Certificate in Nursing must be recommended by the faculty and must:

- 1. Meet academic requirements of the Graduate School
- Complete all requirements for the prescribed curriculum within six calendar years of the first registration for work to be credited toward the degree
- 3. Earn a minimum grade of B or pass grade in all nursing courses
- 4. Earn a minimum cumulative grade-point average of 3.0 on a 4.0 scale in all work presented for graduation
- Conform to School of Nursing policies in respect to pass/fail grading for course work or thesis study

The degree will be granted only after all requirements have been fulfilled and all fees to the university have been paid. Degrees are not granted in absentia unless written request is made to the dean and permission is granted.

Courses

Curriculum requirements

	nour
Students in nurse practitioner certification concentrations are required to have completed advanced health assessment, pharmacotherapeutics and pathophysiology courses.	
NURS 611 Primary Care Advanced Practice Clinical Procedures	1
NURS 612 Acute Care Advanced Practice Clinical Procedures	1
NURS 633 Common Health Problems of Women	2
NURS 661 Adult-Gerontology Primary Care	4
NURS 662 Common Problems in Adult-Gerontology Critical Care	3
NURS 663 Adult-Gerontology Acute Care	3
NURS 678 Adult-Gerontology Acute Care Practicum I	3
NURS 669 Adult-Gerontology Acute Care Practicum II	5

Total graduate credit hours required (minimum)

Degree candidacy requirements

NURS 679 Adult-Gerontology Acute Care Practicum III

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

VCU School of Nursing Student Policy and Information handbooks are located on the school's website.

Nursing, Certificate in (Post-master's certificate) with a concentration in adult-gerontology primary care nurse practitioner

Program accreditation

Accreditation Commission for Education in Nursing

Graduate program director

Ann B. Hamric, Ph.D., R.N., F.A.A.N. Professor and associate dean of academic programs abhamric@vcu.edu (804) 828-3968

Additional contact

Credit

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Susan L. Lipp, M.S.N., R.N. Assistant dean for enrollment and student services slipp@vcu.edu (804) 828-5171

Program website: nursing.vcu.edu/education/postmasters.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Nursing, Certificate in (Post-master's certificate) with a concentration in adultgerontology acute care nurse practitioner

Nursing, Certificate in (Post-master's certificate) with a concentration in family nurse practitioner

Nursing, Certificate in (Post-master's certificate) with a concentration in nursing administration and leadership

Nursing, Certificate in (Post-master's certificate) with a concentration in psychiatric-mental health nurse practitioner

Admission requirements

Nursing, Certificate in (Post-master's certificate) with a concentration in adult- gerontology primary care nurse practitioner				
Degree: Certificate	Semester(s) of entry: Fall	Deadline dates: Mar 15	Test requirements: None	
Special require A personal inter	ments: view may be requested.			

In addition to the general admission requirements of the VCU Graduate School, applicants must:

- Have a master's or doctoral degree in nursing from a U.S. program accredited by ACEN or CCNE or an international equivalent [Applicants to the postmaster's certificate nurse practitioner concentrations must hold a master's or doctoral degree as an advanced practiced registered nurse (NP or CNS) from an accredited (ACEN or CCNE) program.]
- Have a current unencumbered R.N. license or an authorization to practice as an R.N. in Virginia, the District of Columbia or a U.S. possession or territory

- Submit three references from the applicant's graduate program and from employers/supervisors
- Complete the electronic submission of the online VCU Graduate Application, School of Nursing supplemental application materials and all required documents by the listed deadline

Note: A personal interview may be requested.

When an individual is admitted, an evaluation of the transcript is completed. Each required course in the relevant concentration is compared to the entering student's transcript. Upon admission, the school determines whether those course objectives have been fully or partially met in prior master's or doctoral work. Prior courses that are accepted as evidence of full or partial completion are listed on the individual plan of study. This plan will be signed by the entering student and the adviser before the individual actually enrolls. Thus, the plan of study is agreed upon in advance.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The mission of the School of Nursing is to improve health and the human condition through leadership in nursing research, education and service. Therefore we will:

- Sustain our tradition of leadership in educational excellence by preparing future scholars and leaders for nursing and health care
- 2. Be a nationally influential center in the development, translation and dissemination of science in biobehavioral clinical research
- 3. Be a national model for collaboration and partnerships between nursing education and nursing service in academic medical centers
- Be a national model for clinical scholarship (development and dissemination) in the use of simulation, technology and innovation for best practices in education and practice
- Provide services that benefit the profession and promote the health and wellbeing of diverse individuals, families and communities

Ranked in the top 10 percent of graduate nursing programs by U.S. News and World Report, the VCU School of Nursing post-master's degree program provides a world-class learning experience that prepares nurses to become leaders in advanced nursing practice. The post-master's program provides nurses with a solid foundation in the specialized knowledge and advanced practice skills that are needed to care for diverse patient populations with complex health problems across the health-illness continuum. In addition, students partner with interprofessional groups to develop expertise in team-based, patient-centered health care, while also gaining valuable leadership and collaborative skills. The curriculum at VCU prepares graduates who can engage in transformative nursing, not only as leaders who are committed to nursing excellence, but also as practitioners who are committed to the health and well-being of the patients they serve.

VCU School of Nursing offers both direct and indirect patient care concentrations. Our direct patient care concentrations include adult-gerontology acute care NP, adult-gerontology primary care NP, family NP, and psychiatric-mental health NP. One indirect patient care concentration is offered in nursing administration and leadership.

Student learning outcomes

Graduates will achieve advanced nursing practice competencies by demonstrating:

- 1. Systems and organizational leadership
- Implementation of advanced nursing practice interventions
- 3. Effective use of research and technology
- 4. Systematic evaluation of interventions and outcomes

Graduates will be able to:

- 1. Demonstrate core competencies in their advanced practice specialties
- 2. Integrate nursing and related sciences into the delivery of advanced nursing care to diverse populations and systems of health care delivery
- Apply ethical analysis and clinical reasoning to assess, intervene and evaluate advanced nursing care delivery
- Understand the implications of social, cultural, economic, policy and organizational systems that impact practice and outcomes
- 5. Synthesize evidence for practice to determine appropriate application of interventions across diverse populations and settings
- Use quality processes and improvement science to evaluate care and ensure patient safety for individuals, populations and systems
- 7. Integrate organizational science and technology to make changes in the care environment to improve health outcomes and practice efficiency

Adult-gerontology primary care nurse practitioner concentration

The VCU School of Nursing adult-gerontology primary care nurse practitioner concentration prepares nurses to diagnose and manage common acute and chronic health problems in adults, ranging from adolescents to the elderly, through comprehensive physical and psychosocial assessments, use of decision-making/diagnostic reasoning processes, performance of advanced practice skills and procedures, and implementation of evidence-based treatment strategies, including health promotion and disease prevention.

The PCNP role focuses on the provision of advanced independent nursing care integrated with delegated medical diagnostic and management activities. The PCNP has a practice located in an ambulatory care setting and focuses on health promotion, risk reduction and evidence-based primary care to individual patients.

Degree requirements

Twenty-two graduate credit hours are required for the post-master's certificate in nursing with a concentration in adult-gerontology primary care nurse practitioner.

In addition to general VCU Graduate School graduation requirements, a candidate for the degree of Certificate in Nursing must be recommended by the faculty and must:

- 1. Meet academic requirements of the Graduate School
- Complete all requirements for the prescribed curriculum within six calendar years of the first registration for work to be credited toward the degree
- 3. Earn a minimum grade of B or pass grade in all nursing courses
- Earn a minimum cumulative grade-point average of 3.0 on a 4.0 scale in all work presented for graduation
- Conform to School of Nursing policies in respect to pass/fail grading for course work or thesis study

The degree will be granted only after all requirements have been fulfilled and all fees to the university have been paid. Degrees are not granted in absentia unless written request is made to the dean and permission is granted.

Curriculum requirements

Courses

Credit hours

Students in nurse practitioner certification concentrations are required to have completed advanced health assessment, pharmacotherapeutics and pathophysiology courses.

NURS 611 Primary Care Advanced Practice Clinical Procedures	1
NURS 633 Common Health Problems of Women	1-3
NURS 661 Adult-Gerontology Primary Care	4
NURS 663 Adult-Gerontology Acute Care	3
NURS 676 Adult-Gerontology Primary Care Practicum I	1-3
NURS 677 Adult-Gerontology Primary Care Practicum III	4
NURS 682 Women's Practicum I	1-4

Total graduate credit hours required (minimum)

22

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

VCU School of Nursing Student Policy and Information handbooks are located on the school's website.

Nursing, Certificate in (Post-master's certificate) with a concentration in family nurse practitioner

Program accreditation

Accreditation Commission for Education in Nursing

Graduate program director

Ann B. Hamric, Ph.D., R.N., F.A.A.N. Professor and associate dean of academic programs abhamric@vcu.edu (804) 828-3968

Additional contact

Susan L. Lipp, M.S.N., R.N.
Assistant dean for enrollment and student services slipp@vcu.edu
(804) 828-5171

Program website: nursing.vcu.edu/education/postmasters.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Nursing, Certificate in (Post-master's certificate) with a concentration in adultgerontology acute care nurse practitioner

Nursing, Certificate in (Post-master's certificate) with a concentration in adultgerontology primary care nurse practitioner

Nursing, Certificate in (Post-master's certificate) with a concentration in nursing administration and leadership

Nursing, Certificate in (Post-master's certificate) with a concentration in psychiatric-mental health nurse practitioner

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Nursing, Certificate in (Post-master's certificate) with a concentration in family nurse practitioner				
Degree: Certificate	Semester(s) of entry: Fall	Deadline dates:	Test requirements: None	
Special require		Mar 15		

In addition to the general admission requirements of the VCU Graduate School, applicants must:

- Have a master's or doctoral degree in nursing from a U.S. program accredited by ACEN or CCNE or an international equivalent [Applicants to the postmaster's certificate nurse practitioner concentrations must hold a master's or doctoral degree as an advanced practiced registered nurse (NP or CNS) from an accredited (ACEN or CCNE) program.]
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Note: A personal interview may be requested.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The mission of the School of Nursing is to improve health and the human condition through leadership in nursing research, education and service. Therefore we will:

- Sustain our tradition of leadership in educational excellence by preparing future scholars and leaders for nursing and health care
- 2. Be a nationally influential center in the development, translation and dissemination of science in biobehavioral clinical research
- Be a national model for collaboration and partnerships between nursing education and nursing service in academic medical centers
- Be a national model for clinical scholarship (development and dissemination) in the use of simulation, technology and innovation for best practices in education and practice
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VCU School of Nursing offers both direct and indirect patient care concentrations. Our direct patient care concentrations include adult-gerontology acute care NP, adult-gerontology primary care NP, family NP, and psychiatric-mental health NP. One indirect patient care concentration is offered in nursing administration and leadership.

Student learning outcomes

Graduates will achieve advanced nursing practice competencies by demonstrating:

- 1. Systems and organizational leadership
- 2. Implementation of advanced nursing practice interventions
- 3. Effective use of research and technology
- 4. Systematic evaluation of interventions and outcomes

Graduates will be able to:

- 1. Demonstrate core competencies in their advanced practice specialties
- 2. Integrate nursing and related sciences into the delivery of advanced nursing care to diverse populations and systems of health care delivery
- Apply ethical analysis and clinical reasoning to assess, intervene and evaluate advanced nursing care delivery
- Understand the implications of social, cultural, economic, policy and organizational systems that impact practice and outcomes
- Synthesize evidence for practice to determine appropriate application of interventions across diverse populations and settings
- Use quality processes and improvement science to evaluate care and ensure patient safety for individuals, populations and systems
- 7. Integrate organizational science and technology to make changes in the care environment to improve health outcomes and practice efficiency

Family nurse practitioner concentration

For registered nurses interested in providing primary health care to patients of all ages, the family nurse practitioner program offers a flexible and rewarding career path. First launched as a certificate program in 1974, the VCU School of Nursing FNP concentration within the Post-master's Certificate in Nursing program prepares graduates to assess, diagnose and manage common health problems as well as maximize the health and well-being of individuals and families across the

life span. Using comprehensive physical and psychosocial assessments, diagnostic reasoning, advanced-practice skills and procedures, and evidence-based treatment strategies, VCU School of Nursing graduates with the FNP concentration are prepared to provide direct care to individuals and families in a variety of primary care settings.

Students who successfully complete the FNP concentration within the post-master's certificate program are eligible to apply for certification as a family nurse practitioner by both national certifying bodies: the American Nurses Credentialing Center and the American Academy of Nurse Practitioners.

Degree requirements

Twenty-seven graduate credit hours are required for the Post-master's Certificate in Nursing with a concentration in family nurse practitioner.

In addition to general VCU Graduate School graduation requirements, a candidate for the degree of Certificate in Nursing must be recommended by the faculty and must:

- 1. Meet academic requirements of the Graduate School
- Complete all requirements for the prescribed curriculum within six calendar years of the first registration for work to be credited toward the degree
- 3. Earn a minimum grade of B or pass grade in all nursing courses
- Earn a minimum cumulative grade-point average of 3.0 on a 4.0 scale in all work presented for graduation
- Conform to School of Nursing policies in respect to pass/fail grading for course work or thesis study

The degree will be granted only after all requirements have been fulfilled and all fees to the university have been paid. Degrees are not granted in absentia unless written request is made to the dean and permission is granted.

Curriculum requirements

Courses	Credit hours
Students in nurse practitioner certification concentrations are required to have completed advanced health assessment, pharmacotherapeutics and pathophysiology courses.	
NURS 611 Primary Care Advanced Practice Clinical Procedures	1
NURS 627 Foundational Perspectives of Family-centered Care	2
NURS 629 Common Health Problems in Primary Care Across the Lifespan I	4
NURS 630 Common Health Problems in Primary Care Across the Lifespan II	4
NURS 631 Primary Care of Select Populations	2
NURS 643 Family Primary Care Practicum I	6
NURS 644 Family Primary Care Seminar	1
NURS 645 Family Primary Care Practicum II	6
NURS 646 Family Primary Care Final Synthesis	1
Total graduate credit hours required (minimum)	60

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

VCU School of Nursing Student Policy and Information handbooks are located on the school's website.

Nursing, Certificate in (Post-master's certificate) with a concentration in nursing administration and leadership

Program accreditation

Accreditation Commission for Education in Nursing

Graduate program director

Ann B. Hamric, Ph.D., R.N., F.A.A.N. Professor and associate dean of academic programs abhamric@vcu.edu (804) 828-3968

Additional contact

Susan L. Lipp, M.S.N., R.N. Assistant dean for enrollment and student services slipp@vcu.edu (804) 828-5171

Program website: nursing.vcu.edu/education/postmasters.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Nursing, Certificate in (Post-master's certificate) with a concentration in adultgerontology acute care nurse practitioner

Nursing, Certificate in (Post-master's certificate) with a concentration in adultgerontology primary care nurse practitioner

Nursing, Certificate in (Post-master's certificate) with a concentration in family nurse practitioner

Nursing, Certificate in (Post-master's certificate) with a concentration in psychiatric-mental health nurse practitioner

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Nursing, Certificate in (Post-master's certificate) with a concentration in nursing administration and leadership				
Degree: Certificate	Semester(s) of entry: Fall	Deadline dates: Mar 15	Test requirements: None	
Special require A personal inter	ments: view may be requested.			

In addition to the general admission requirements of the VCU Graduate School, applicants must:

 Have a master's or doctoral degree in nursing from a U.S. program accredited by ACEN or CCNE or an international equivalent [Applicants to the postmaster's certificate nurse practitioner concentrations must hold a master's or doctoral degree as an advanced practiced registered nurse (NP or CNS) from an accredited (ACEN or CCNE) program.]

- 2. Have a current unencumbered R.N. license or an authorization to practice as an R.N. in Virginia, the District of Columbia or a U.S. possession or territory
- Submit three references from the applicant's graduate program and from employers/supervisors
- Complete the electronic submission of the online VCU Graduate Application, School of Nursing supplemental application materials and all required documents by the listed deadline

Note: A personal interview may be requested.

When an individual is admitted, an evaluation of the transcript is completed. Each required course in the relevant concentration is compared to the entering student's transcript. Upon admission, the school determines whether those course objectives have been fully or partially met in prior master's or doctoral work. Prior courses that are accepted as evidence of full or partial completion are listed on the individual plan of study. This plan will be signed by the entering student and the adviser before the individual actually enrolls. Thus, the plan of study is agreed upon in advance.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The mission of the School of Nursing is to improve health and the human condition through leadership in nursing research, education and service. Therefore we will:

- Sustain our tradition of leadership in educational excellence by preparing future scholars and leaders for nursing and health care
- 2. Be a nationally influential center in the development, translation and dissemination of science in biobehavioral clinical research
- 3. Be a national model for collaboration and partnerships between nursing education and nursing service in academic medical centers
- Be a national model for clinical scholarship (development and dissemination) in the use of simulation, technology and innovation for best practices in education and practice
- Provide services that benefit the profession and promote the health and wellbeing of diverse individuals, families and communities

Ranked in the top 10 percent of graduate nursing programs by U.S. News and World Report, the VCU School of Nursing post-master's degree program provides a world-class learning experience that prepares nurses to become leaders in advanced nursing practice. The post-master's program provides nurses with a solid foundation in the specialized knowledge and advanced practice skills that are needed to care for diverse patient populations with complex health problems across the health-illness continuum. In addition, students partner with interprofessional groups to develop expertise in team-based, patient-centered health care, while also gaining valuable leadership and collaborative skills. The curriculum at VCU prepares graduates who can engage in transformative nursing, not only as leaders who are committed to nursing excellence, but also as

practitioners who are committed to the health and well-being of the patients they serve.

VCU School of Nursing offers both direct and indirect patient care concentrations. Our direct patient care concentrations include adult-gerontology acute care NP, adult-gerontology primary care NP, family NP, and psychiatric-mental health NP. One indirect patient care concentration is offered in nursing administration and leadership.

Student learning outcomes

Graduates will achieve advanced nursing practice competencies by demonstrating:

- 1. Systems and organizational leadership
- 2. Implementation of advanced nursing practice interventions
- 3. Effective use of research and technology
- 4. Systematic evaluation of interventions and outcomes

Graduates will be able to:

- 1. Demonstrate core competencies in their advanced practice specialties
- 2. Integrate nursing and related sciences into the delivery of advanced nursing care to diverse populations and systems of health care delivery
- Apply ethical analysis and clinical reasoning to assess, intervene and evaluate advanced nursing care delivery
- 4. Understand the implications of social, cultural, economic, policy and organizational systems that impact practice and outcomes
- Synthesize evidence for practice to determine appropriate application of interventions across diverse populations and settings
- 6. Use quality processes and improvement science to evaluate care and ensure patient safety for individuals, populations and systems
- Integrate organizational science and technology to make changes in the care environment to improve health outcomes and practice efficiency

Nursing administration and leadership concentration

For advanced practice registered nurses interested in a leadership role in a health care organization, the nursing administration and leadership concentration offers a flexible and rewarding career path. Over the past three decades, this concentration has gained a reputation for educating some of the nation's top nursing leaders. With a vision of shaping the future of health care through innovative nursing leadership, the NAL concentration prepares nurses to play an essential systems-level role in promoting and sustaining high-quality and safe patient care. Students gain advanced knowledge and skills in the areas of leadership, administration, management, health care finance, budgeting, outcomes management and evidence-based organizational practices in health care.

Students who successfully complete the NAL concentration within the certificate program are prepared to succeed in a nursing leadership position and are eligible, depending on employment role, to apply for several different nursing administration certification exams offered through the American Nurses Credentialing Center of the American Nurses Association or the American Organization of Nurse Executives.

Degree requirements

Twenty-eight graduate credit hours are required for the Post-master's Certificate in Nursing with a concentration in nursing administration and leadership.

In addition to general VCU Graduate School graduation requirements, a candidate for the degree of Certificate in Nursing must be recommended by the faculty and must:

- 1. Meet academic requirements of the Graduate School
- 2. Complete all requirements for the prescribed curriculum within six calendar years of the first registration for work to be credited toward the degree
- 3. Earn a minimum grade of B or pass grade in all nursing courses
- Earn a minimum cumulative grade-point average of 3.0 on a 4.0 scale in all work presented for graduation
- Conform to School of Nursing policies in respect to pass/fail grading for course work or thesis study

The degree will be granted only after all requirements have been fulfilled and all fees to the university have been paid. Degrees are not granted in absentia unless written request is made to the dean and permission is granted.

Curriculum requirements

Courses		Credit hours
Core courses		6
NURS 505 Advanced Nursing Practice: Foundations in Health Care Finance	3	
NURS 508 Policy, Processes and Systems for Advanced Nursing Practice	3	
(if not taken in master's program.)		
Concentration requirements		22
NURS 655 Nurse as Leader	2	
NURS 680 Leading People	3	
NURS 681 Nurses as Organizational Leaders	3	
NURS 687 Management Systems and Health Care Outcomes	4	
NURS 690 Application of Financial Concepts	4	
NURS 692 Integrative Administrative Systems Practicum I	2	
NURS 693 Integrative Administrative Systems Practicum II	2	
NURS 694 Integrative Administrative Systems Practicum III	2	
Total graduate credit hours required (minimum)		28

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

VCU School of Nursing Student Policy and Information handbooks are located on the school's website.

Nursing, Certificate in (Post-master's certificate) with a concentration in psychiatric-mental health nurse practitioner

Program accreditation

Accreditation Commission for Education in Nursing

Graduate program director

Ann B. Hamric, Ph.D., R.N., F.A.A.N.
Professor and associate dean of academic programs abhamric@vcu.edu
(804) 828-3968

Additional contact

Susan L. Lipp, M.S.N., R.N. Assistant dean for enrollment and student services slipp@vcu.edu (804) 828-5171

Program website: nursing.vcu.edu/education/postmasters.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Nursing, Certificate in (Post-master's certificate) with a concentration in adultgerontology acute care nurse practitioner

Nursing, Certificate in (Post-master's certificate) with a concentration in adultgerontology primary care nurse practitioner

Nursing, Certificate in (Post-master's certificate) with a concentration in family nurse practitioner

Nursing, Certificate in (Post-master's certificate) with a concentration in nursing administration and leadership

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Nursing, Certificate in (Post-master's certificate) with a concentration in psychiatric-mental health nurse practitioner				
Degree: Certificate	Semester(s) of entry: Fall	Deadline dates: Mar 15	Test requirements: None	
Special require A personal inter	ments: view may be requested.			

In addition to the general admission requirements of the VCU Graduate School, applicants must:

- Have a master's or doctoral degree in nursing from a U.S. program accredited by ACEN or CCNE or an international equivalent [Applicants to the postmaster's certificate nurse practitioner concentrations must hold a master's or doctoral degree as an advanced practiced registered nurse (NP or CNS) from an accredited (ACEN or CCNE) program.]
- 2. Have a current unencumbered R.N. license or an authorization to practice as an R.N. in Virginia, the District of Columbia or a U.S. possession or territory
- 3. Submit three references from the applicant's graduate program and from employers/supervisors
- Complete the electronic submission of the online VCU Graduate Application, School of Nursing supplemental application materials and all required documents by the listed deadline

Note: A personal interview may be requested.

When an individual is admitted, an evaluation of the transcript is completed. Each required course in the relevant concentration is compared to the entering student's transcript. Upon admission, the school determines whether those course objectives have been fully or partially met in prior master's or doctoral work. Prior courses that are accepted as evidence of full or partial completion are listed on the individual plan of study. This plan will be signed by the entering student and the adviser before the individual actually enrolls. Thus, the plan of study is agreed upon in advance.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The mission of the School of Nursing is to improve health and the human condition through leadership in nursing research, education and service. Therefore we will:

- Sustain our tradition of leadership in educational excellence by preparing future scholars and leaders for nursing and health care
- 2. Be a nationally influential center in the development, translation and dissemination of science in biobehavioral clinical research
- 3. Be a national model for collaboration and partnerships between nursing education and nursing service in academic medical centers
- Be a national model for clinical scholarship (development and dissemination) in the use of simulation, technology and innovation for best practices in education and practice
- Provide services that benefit the profession and promote the health and wellbeing of diverse individuals, families and communities

Ranked in the top 10 percent of graduate nursing programs by U.S. News and World Report, the VCU School of Nursing post-master's degree program provides a world-class learning experience that prepares nurses to become leaders in advanced nursing practice. The post-master's program provides nurses with a solid foundation in the specialized knowledge and advanced practice skills that are needed to care for diverse patient populations with complex health problems across the health-illness continuum. In addition, students partner with interprofessional groups to develop expertise in team-based, patient-centered health care, while also gaining valuable leadership and collaborative skills. The curriculum at VCU prepares graduates who can engage in transformative nursing, not only as leaders who are committed to nursing excellence, but also as practitioners who are committed to the health and well-being of the patients they serve.

VCU School of Nursing offers both direct and indirect patient care concentrations. Our direct patient care concentrations include adult-gerontology acute care NP, adult-gerontology primary care NP, family NP, and psychiatric-mental health NP. One indirect patient care concentration is offered in nursing administration and leadership.

Student learning outcomes

Graduates will achieve advanced nursing practice competencies by demonstrating:

- 1. Systems and organizational leadership
- 2. Implementation of advanced nursing practice interventions
- 3. Effective use of research and technology
- 4. Systematic evaluation of interventions and outcomes

Graduates will be able to:

- 1. Demonstrate core competencies in their advanced practice specialties
- 2. Integrate nursing and related sciences into the delivery of advanced nursing care to diverse populations and systems of health care delivery
- Apply ethical analysis and clinical reasoning to assess, intervene and evaluate advanced nursing care delivery
- Understand the implications of social, cultural, economic, policy and organizational systems that impact practice and outcomes
- Synthesize evidence for practice to determine appropriate application of interventions across diverse populations and settings
- 6. Use quality processes and improvement science to evaluate care and ensure patient safety for individuals, populations and systems
- Integrate organizational science and technology to make changes in the care environment to improve health outcomes and practice efficiency

Psychiatric-mental health nurse practitioner concentration

The psychiatric-mental health nurse practitioner concentration prepares graduates for roles as nurse practitioners in psychiatric-mental health nursing. This concentration focuses on psychopharmacologic and psychotherapeutic management and treatment of common mental health problems and psychiatric disorders seen across the lifespan. Graduates use evidence-based guidelines to assess and intervene in response to the psychiatric, psychosocial and psychoeducational needs of individuals, families and groups. Students who successfully complete the psychiatric-mental health nurse practitioner program are eligible to apply for the psychiatric and mental health nurse practitioner certification exam administered by the American Nurses Credentialing Center. Psychiatric-mental health nurse practitioners are prepared to diagnose and treat individuals with psychiatric and/or substance abuse disorders, as well as address the mental health problems that often go along with medical illness.

Degree requirements

Twenty-three graduate credit hours are required for the Post-master's Certificate in Nursing with a concentration in psychiatric-mental health nurse practitioner.

In addition to general VCU Graduate School graduation requirements, a candidate for the degree of Certificate in Nursing must be recommended by the faculty and must:

- 1. Meet academic requirements of the Graduate School
- Complete all requirements for the prescribed curriculum within six calendar years of the first registration for work to be credited toward the degree
- 3. Earn a minimum grade of B or pass grade in all nursing courses
- 4. Earn a minimum cumulative grade-point average of 3.0 on a 4.0 scale in all work presented for graduation
- Conform to School of Nursing policies in respect to pass/fail grading for course work or thesis study

The degree will be granted only after all requirements have been fulfilled and all fees to the university have been paid. Degrees are not granted in absentia unless written request is made to the dean and permission is granted.

Courses

Curriculum requirements

Courses	hours
Students in nurse practitioner certification concentrations are required to have completed advanced health assessment, pharmacotherapeutics and pathophysiology courses.	
NURS 635 Advanced Practice Psychiatric Mental Health Nursing Practicum I	6
NURS 636 Advanced Practice Psychiatric Mental Health Nursing Seminar	3
NURS 637 Advanced Practice Psychiatric Mental Health Nursing Practicum II	6
NURS 656 Diagnosis and Psychopharmacologic Treatment of Psychiatric Disorders Across the Lifespan	4

NURS 657 Advanced Practice Psychiatric Mental Health Nursing: Theory 4 and Practice Across the Lifespan

Total graduate credit hours required (minimum)

23

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

VCU School of Nursing Student Policy and Information handbooks are located on the school's website.

Nursing, Doctor of Philosophy (Ph.D.)

Graduate program director

Ann B. Hamric, Ph.D., R.N., F.A.A.N. Professor and associate dean of academic programs abhamric@vcu.edu (804) 828-3968

Additional contact

Credit

Susan L. Lipp, M.S.N., R.N. Assistant dean for enrollment and student services slipp@vcu.edu (804) 828-5171

Program website: nursing.vcu.edu/education/phd

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Nursing, Doctor of Philosophy (Ph.D.)			
Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE
	Fall, odd years (part- time and B.S-Ph.D.	Feb 1	
	students)	Note: Applications	
	Fall, even years (full-	may be accepted after	
	and part-time	the deadline on a	
	students)	space-available basis.	
Special require	ments:		
A personal inter	view is required		

In addition to the general admission requirements of the VCU Graduate School, applicants must present:

- Both a baccalaureate and a master's degree, one of which must be in nursing (The degree in nursing must be from an NLNAC- or CCNE-accredited school or international equivalent.)
- 2. Minimum GPA of 3.0 on a 4.0 scale
- Minimum total Graduate Record Exam score of 800 on verbal and quantitative
- Three-credit undergraduate-level statistics course or equivalent with a passing grade of B or better
- Licensure as an R.N. (International applicants must have an equivalent credential.)

Applicants must complete and submit the following materials:

- A VCU application for graduate studies (Application forms and instructions for applying to all graduate programs are available on the Graduate Admissions website.)
- Official transcripts from all previous universities and colleges attended for all graduate and undergraduate work
- Official GRE score report
- 4. A typed personal statement, thoughtfully and scholarly answering the following questions:
 - a. What are your career goals, and how do you see this doctoral program contributing to meeting them?
 - b. Within your particular area of interest, identify some problems you see as offering promise for research.
 - c. What particular strengths do you believe you bring to this program that would enrich the learning environment of your peers?
 - d. What do you perceive as major contemporary issues in nursing, and what are your views on at least one of them?
 - e. Identify one or two potential advisers from the School of Nursing Ph.D. faculty who may be a good match for your research interests, and provide a rationale for your choice.
- A resume that includes name and address, past educational degrees, past work experiences, professional affiliations, certifications, honors and awards, presentations, and publications
- 7. References from three persons who can knowledgeably comment upon applicant's ability to succeed in an academic program (e.g., former faculty) or who can evaluate applicant's ability to be successful in nursing research (Avoid references from ministers or others who are not familiar with professional and academic abilities; from friends, either professional or personal; or from personal health care providers.)

Note: A personal interview is required.

School of Nursing B.S. graduates of the VCU Honors College are eligible for automatic admission to the master's program or the post-B.S. to Ph.D. program upon submission of an application form and personal statement. Requirements for GRE scores and references are waived.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goals

The mission of the School of Nursing is to improve health and the human condition through leadership in nursing research, education and service. Therefore we will:

- Sustain our tradition of leadership in educational excellence by preparing future scholars and leaders for nursing and health care
- Be a nationally influential center in the development, translation and dissemination of science in biobehavioral clinical research
- 3. Be a national model for collaboration and partnerships between nursing education and nursing service in academic medical centers
- Be a national model for clinical scholarship (development and dissemination) in the use of simulation, technology and innovation for best practices in education and practice
- Provide services that benefit the profession and promote the health and wellbeing of diverse individuals, families and communities

The goal of the doctoral program in nursing is the preparation of scholars to develop knowledge in the discipline of nursing. The program examines knowledge development in nursing through an understanding of the impact of a wide range of historical influences on the discipline and through analysis of how emerging societal issues influence knowledge development. Knowledge in the humanities and social sciences and an understanding of knowledge development in other disciplines is viewed as foundational to a full understanding of knowledge development in nursing. Methodologic competency (i.e., knowledge of research designs, methodologies and tools) is also essential to a full understanding of the scope, range and path of knowledge development and the relevance to nursing practice.

The VCU School of Nursing has enhanced its Ph.D. program by incorporating a hybrid instructional format. The program includes a combination of online courses and traditional classroom experiences to offer students a dynamic, interactive learning experience that will prepare them to become nurse scholars and scientists. This format is designed to expand the Ph.D. program's reach to a wider range of highly motivated, independent students who aspire to become scholars, make a significant difference in the field of nursing and study with nationally recognized nurse scientists who conduct biobehavioral clinical research.

Student learning outcomes

The VCU Ph.D. program prepares students to become teacher-scholars or pioneering researchers committed to the highest ideals of nursing excellence. Program activities are designed to be consistent with the School of Nursing's mission to improve health and the human condition through leadership in nursing research, education and service. With a research focus on biobehavioral approaches to symptom management, the Ph.D. program prepares graduates for lifelong scholarship and innovation in nursing.

At the completion of the doctoral program, the student will be able to:

- 1. Apply, transmit and generate knowledge in the discipline of nursing
- Construct, test and modify theories for nursing in the context of social, ethical, scientific, cultural and economic influences
- 3. Analyze and synthesize knowledge from related disciplines for use in nursing
- 4. Exhibit scientific integrity in scholarly inquiry
- Engage in interdisciplinary collaboration in knowledge development and dissemination

Degree requirements

A minimum of sixty-one graduate credit hours are required for the Ph.D. in Nursing program.

In addition to general VCU Graduate School graduation requirements, a candidate for the doctoral degree in nursing must be recommended by the faculty and must:

- 1. Meet academic requirements of the Graduate School
- Complete all requirements for the prescribed curriculum within eight calendar years of the first registration for work to be credited toward the degree
- 3. Earn a minimum grade of B or pass grade in all nursing courses
- Earn a minimum cumulative grade-point average of 3.0 on a 4.0 scale in all work presented for graduation
- Conform to School of Nursing policies in respect to pass/fail grading for course work or thesis study

The degree will be granted only after all requirements have been fulfilled, all fees to the university have been paid and electronic copies of the dissertation have been submitted. Degrees are not granted in absentia unless written request is made to the dean and permission is granted.

Curriculum requirements

Courses	Credit hours
Core courses	6
NURS 703 Philosophy of Human Sciences	3
NURS 704 Analysis and Construction of Nursing Models and Theories	3
Research methods and statistics	17
BIOS/STAT 543 Statistical Methods I	3
BIOS/STAT 544 Statistical Methods II	3
NURS 770 Quantitative Research Design	3
NURS 772 Qualitative Research Design and Analysis	4
NURS 773 Perspectives on Research Design	3
OVPR 601 Scientific Integrity or OVPR 603 Responsible Conduct of	1
Research	
Focus of inquiry	12-15
NURS 720 Foundations of Biobehavioral Clinical Research	3
NURS 721 Biobehavorial Measures in Clinical Research	3
NURS 722 Emerging Frameworks for Biobehavioral Clinical Research	3
*Electives: Choose courses designed to support the area of study	3-6
Research training	11-14
NURS 776, 777, 778 Research Program Development Seminar I, II, III	6
NURS 796 Directed Research	2-5
NURS 797 Research Practicum	3
Dissertation	12
NURS 898 Dissertation	12
Total graduate credit hours required (minimum)	61

Electives

*Choose courses designed to support the area of study.

NEXus cluster courses (NEXS 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611,612, 613, 614, 615) NURS 792 Directed Study in Nursing NURS 796 Directed Research

Comprehensive examination requirements

Other courses approved by your adviser

The purpose of the comprehensive examination is to test synthesis of foundational knowledge in preparation for launching a program of scholarship as a beginning scientist. Three knowledge domains are critical: a) theory and philosophy, b) qualitative and c) quantitative methodological approaches. The student's area of study is incorporated into these three domains. The comprehensive exam consists of two components, a written and an oral component, both of which must be passed. The oral exam will be conducted with the student either in person or via video conference.

Dissertation requirements

The student must conduct a substantial independent investigation and prepare a dissertation reporting the results of this research and analyzing its significance in relation to existing scientific knowledge. Satisfactory completion of the comprehensive examination and a satisfactory oral defense of the dissertation proposal are required prior to commencement of actual work outlined in the proposal. Once approved, the dissertation proposal is similar to a formal contract between the student and dissertation committee about the nature of the dissertation

The dissertation committee must consist of a minimum of four members. A member of the graduate faculty of the School of Nursing who has an established program of research and prior experience on dissertation committees must chair a student's dissertation committee. Other committee members must include one faculty member from the student's focus area and one member from outside the School of Nursing. The dissertation committee is approved by the associate dean for academic programs in the School of Nursing. An oral defense of the dissertation is conducted by the student's dissertation committee. The student is responsible for preparing the dissertation in accordance with the most current version of the Graduate School Thesis and Dissertation Manual.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

VCU School of Nursing Student Policy and Information handbooks are located on the school's website.

Nursing, Master of Science (M.S.) with a concentration in adult-gerontology acute care nurse practitioner

Program accreditation

Accreditation Commission for Education in Nursing

Graduate program director

Ann B. Hamric, Ph.D., R.N., F.A.A.N. Professor and associate dean of academic programs abhamric@vcu.edu (804) 828-3968

Additional contact

Susan L. Lipp, M.S.N., R.N.
Assistant dean for enrollment and student services slipp@vcu.edu
(804) 828-5171

Program website: nursing.vcu.edu/education/masters

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Nursing, Master of Science (M.S.) with a concentration in adult-gerontology primary care nurse practitioner

Nursing, Master of Science (M.S.) with a concentration in family nurse practitioner

Nursing, Master of Science (M.S.) with a concentration in nursing administration and leadership

Nursing, Master of Science (M.S.) with a concentration in psychiatric-mental health nurse practitioner

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Nursing, Master of Science (M.S.) with a concentration in adult-gerontology acute care nurse practitioner			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.S.	entry:		GRE scores are
	Fall	Mar 15	required if cumulative
			undergraduate GPA is less than 3.25

In addition to the general admission requirements of the VCU Graduate School, applicants must:

- 1. Be eligible for readmission or in good standing at the last college attended
- Have a baccalaureate degree in nursing from a U.S. ACEN- or CCNEaccredited program or an international equivalent
- Have a current unencumbered R.N. license or an authorization to practice as an R.N. in Virginia, the District of Columbia, or a U.S. possession or territory
- 4. Have a minimum cumulative GPA of 2.7 on all college course work
- 5. Complete an undergraduate statistics course
- 6. Provide GRE scores if cumulative undergraduate GPA is less than 3.25
- Submit online VCU Graduate Application (electronically), School of Nursing supplemental application materials and all required documents by posted deadline

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VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The mission of the School of Nursing is to improve health and the human condition through leadership in nursing research, education and service. Therefore we will:

- Sustain our tradition of leadership in educational excellence by preparing future scholars and leaders for nursing and health care
- 2. Be a nationally influential center in the development, translation and dissemination of science in biobehavioral clinical research
- Be a national model for collaboration and partnerships between nursing education and nursing service in academic medical centers
- Be a national model for clinical scholarship (development and dissemination) in the use of simulation, technology and innovation for best practices in education and practice
- Provide services that benefit the profession and promote the health and wellbeing of diverse individuals, families and communities

Ranked in the top 10 percent of graduate nursing programs by U.S. News and World Report, the VCU School of Nursing master's degree program provides a world-class learning experience that prepares nurses to become leaders in advanced nursing practice. The master's program provides nurses with a solid foundation in the specialized knowledge and advanced practice skills that are needed to care for diverse patient populations with complex health problems across the health-illness continuum. In addition, students partner with interprofessional groups to develop expertise in team-based, patient-centered health care, while also gaining valuable leadership and collaborative skills. The curriculum at VCU prepares graduates who can engage in transformative nursing, not only as leaders who are committed to nursing excellence, but also as practitioners who are committed to the health and well-being of the patients they serve.

VCU School of Nursing offers both direct and indirect patient care concentrations. Our direct patient care concentrations include adult-gerontology acute care NP, adult-gerontology primary care NP, family NP, and psychiatric-mental health NP. One indirect patient care concentration is offered in nursing administration and leadership.

Student learning outcomes

Master's students will achieve advanced nursing practice competencies by demonstrating:

- . Systems and organizational leadership
- 2. Implementation of advanced nursing practice interventions
- Effective use of research and technology
- 4. Systematic evaluation of interventions and outcomes

Graduates will be able to:

- 1. Demonstrate core competencies in their advanced practice specialties
- 2. Integrate nursing and related sciences into the delivery of advanced nursing care to diverse populations and systems of health care delivery
- 3. Apply ethical analysis and clinical reasoning to assess, intervene and evaluate advanced nursing care delivery
- 4. Understand the implications of social, cultural, economic, policy and organizational systems that impact practice and outcomes
- Synthesize evidence for practice to determine appropriate application of interventions across diverse populations and settings
- Use quality processes and improvement science to evaluate care and ensure patient safety for individuals, populations and systems
- Integrate organizational science and technology to make changes in the care environment to improve health outcomes and practice efficiency

Adult-gerontology acute care nurse practitioner concentration

Students in the adult-gerontology acute care nurse practitioner concentration will develop the advanced knowledge and skills needed to manage acutely ill patients through all phases of their hospitalization and post-hospitalization follow-up. Students learn to manage patients through comprehensive physical and psychosocial assessments, use of decision-making/diagnostic reasoning processes, performance of advanced practice skills and procedures, and implementation of evidence-based treatment strategies. Graduates of the VCU School of Nursing ACNP concentration are prepared to diagnose and manage complex health problems of adults across the life span, including acute/critical illness and injuries, as well as exacerbations of chronic conditions.

The adult-gerontology acute care nurse practitioner generally works in an acute care setting, often within a multidisciplinary team focused on the provision of evidence-based care to adults who are acutely ill. The sphere of influence of the nurse practitioner is that of the patient.

Degree requirements

Forty-eight graduate credit hours are required for the adult-gerontology acute care nurse practitioner concentration.

In addition to general VCU Graduate School graduation requirements, a candidate for the degree of Master of Science in Nursing must be recommended by the faculty and must:

- 1. Meet academic requirements of the Graduate School
- 2. Complete all requirements for the prescribed curriculum within six calendar years of the first registration for work to be credited toward the degree
- 3. Earn a minimum grade of B or pass grade in all nursing courses
- 4. Earn a minimum cumulative grade-point average of 3.0 on a 4.0 scale in all work presented for graduation
- Conform to School of Nursing policies in respect to pass/fail grading for course work or thesis study

The degree will be granted only after all requirements have been fulfilled and all fees to the university have been paid. Degrees are not granted in absentia unless written request is made to the dean and permission is granted.

Curriculum requirements

Courses	Credit hours
Core courses	
NURS 501 Advanced Professionalization I	1
NURS 502 Advanced Nursing Practice: Pharmacotherapeutics	3
NURS 503 Ethics, Advanced Nursing Practice and the Health Care Environment	3
NURS 504 Advanced Nursing Practice: The Biological Basis of Health and Illness Across the Lifespan	3
NURS 507 Health Promotion and Disease Prevention Across the Lifespan	4

NURS 508 Policy, Processes and Systems for Advanced Nursing Practice	3
NURS 511 Health Assessment for Advanced Nursing Practice	3
NURS 512 Evidence-based Advanced Nursing Practice	3
NURS 601 Advanced Professionalization II	1
Concentration courses	
NURS 611 Primary Care Advanced Practice Clinical Procedures	1
NURS 612 Acute Care Advanced Practice Clinical Procedures	1
NURS 661 Adult-Gerontology Primary Care	4
NURS 662 Common Problems in Adult-Gerontology Critical Care	3
NURS 663 Adult-Gerontology Acute Care	3
NURS 678 Adult-Gerontology Acute Care Practicum I	3
NURS 669 Adult-Gerontology Acute Care Practicum II	5
NURS 679 Adult-Gerontology Acute Care Practicum III	4
Total graduate credit hours required (minimum)	48

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions

Degree candidacy requirements



Graduation requirements

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Graduation requirements



Other information

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Nursing, Master of Science (M.S.) with a concentration in adult-gerontology primary care nurse practitioner

Program accreditation

Accreditation Commission for Education in Nursing

Graduate program director

Ann B. Hamric, Ph.D., R.N., F.A.A.N.

Professor and associate dean of academic programs abhamric@ycu edu

(804) 828-3968

Additional contact

Susan L. Lipp, M.S.N., R.N.

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Admission requirements

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Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE scores are
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- 5. Complete an undergraduate statistics course
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General academic regulations for all graduate students in all graduate programs at VCU



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Student learning outcomes

Master's students will achieve advanced nursing practice competencies by demonstrating:

- 1. Systems and organizational leadership
- 2. Implementation of advanced nursing practice interventions
- Effective use of research and technology
- 4. Systematic evaluation of interventions and outcomes

Graduates will be able to:

- 1. Demonstrate core competencies in their advanced practice specialties
- 2. Integrate nursing and related sciences into the delivery of advanced nursing care to diverse populations and systems of health care delivery
- Apply ethical analysis and clinical reasoning to assess, intervene and evaluate advanced nursing care delivery
- Understand the implications of social, cultural, economic, policy and organizational systems that impact practice and outcomes
- Synthesize evidence for practice to determine appropriate application of interventions across diverse populations and settings
- Use quality processes and improvement science to evaluate care and ensure patient safety for individuals, populations and systems
- 7. Integrate organizational science and technology to make changes in the care environment to improve health outcomes and practice efficiency

Adult-gerontology primary care nurse practitioner concentration

The VCU School of Nursing adult-gerontology primary care nurse practitioner concentration prepares nurses to diagnose and manage common acute and chronic health problems in adults, ranging from adolescents to the elderly, through comprehensive physical and psychosocial assessments, use of decision-making/diagnostic reasoning processes, performance of advanced practice skills and

procedures, and implementation of evidence-based treatment strategies, including health promotion and disease prevention.

The PCNP role focuses on the provision of advanced independent nursing care integrated with delegated medical diagnostic and management activities. The PCNP has a practice located in an ambulatory care setting and focuses on health promotion, risk reduction and evidence-based primary care to individual patients.

Degree requirements

Forty-five graduate credit hours are required for the adult-gerontology primary care nurse practitioner concentration.

In addition to general VCU Graduate School graduation requirements, a candidate for the degree of Master of Science in Nursing must be recommended by the faculty and must:

- 1. Meet academic requirements of the Graduate School
- 2. Complete all requirements for the prescribed curriculum within six calendar years of the first registration for work to be credited toward the degree
- 3. Earn a minimum grade of B or pass grade in all nursing courses
- 4. Earn a minimum cumulative grade-point average of 3.0 on a 4.0 scale in all work presented for graduation
- Conform to School of Nursing policies in respect to pass/fail grading for course work or thesis study

The degree will be granted only after all requirements have been fulfilled and all fees to the university have been paid. Degrees are not granted in absentia unless written request is made to the dean and permission is granted.

Curriculum requirements

Courses	Credit hours
Core courses	
NURS 501 Advanced Professionalization I	1
NURS 502 Advanced Nursing Practice: Pharmacotherapeutics	3
NURS 503 Ethics, Advanced Nursing Practice and the Health Care Environment	3
NURS 504 Advanced Nursing Practice: The Biological Basis of Health and Illness Across the Lifespan	3
NURS 507 Health Promotion and Disease Prevention Across the Lifespan	4
NURS 508 Policy, Processes and Systems for Advanced Nursing Practice	3
NURS 511 Health Assessment for Advanced Nursing Practice	3
NURS 512 Evidence-based Advanced Nursing Practice	3
NURS 601 Advanced Professionalization II	1
Concentration courses	
NURS 611 Primary Care Advanced Practice Clinical Procedures	1
NURS 633 Common Health Problems of Women	1-3
NURS 661 Adult-Gerontology Primary Care	4
NURS 663 Adult-Gerontology Acute Care	3
NURS 676 Adult-Gerontology Primary Care Practicum I	1-3
NURS 675 Adult-Gerontology Primary Care Practicum II	4
NURS 677 Adult-Gerontology Primary Care Practicum III	4
Total graduate credit hours required (minimum)	45

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's

academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

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Graduation requirements



Other information

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Nursing, Master of Science (M.S.) with a concentration in family nurse practitioner

Program accreditation

Accreditation Commission for Education in Nursing

Graduate program director

Ann B. Hamric, Ph.D., R.N., F.A.A.N. Professor and associate dean of academic programs

abhamric@vcu.edu (804) 828-3968

Additional contact

Susan L. Lipp, M.S.N., R.N.

Assistant dean for enrollment and student services

slipp@vcu.edu

(804) 828-5171

Program website: nursing.vcu.edu/education/masters

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Nursing, Master of Science (M.S.) with a concentration in adult-gerontology acute care nurse practitioner

Nursing, Master of Science (M.S.) with a concentration in adult-gerontology primary care nurse practitioner

Nursing, Master of Science (M.S.) with a concentration in nursing administration and leadership

Nursing, Master of Science (M.S.) with a concentration in psychiatric-mental health nurse practitioner

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Nursing, Master of Science (M.S.) with a concentration in family nurse practitioner			
Degree: M.S.	Semester(s) of entry: Fall	Deadline dates: Mar 15	Test requirements: GRE scores are required if cumulative undergraduate GPA is less than 3.25

In addition to the general admission requirements of the VCU Graduate School, applicants must:

- 1. Be eligible for readmission or in good standing at the last college attended
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- 5. Complete an undergraduate statistics course
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General academic regulations for all graduate students in all graduate programs at VCU



Program goals

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Student learning outcomes

Master's students will achieve advanced nursing practice competencies by demonstrating:

- 1. Systems and organizational leadership
- 2. Implementation of advanced nursing practice interventions
- 3. Effective use of research and technology
- 4. Systematic evaluation of interventions and outcomes

Graduates will be able to:

- 1. Demonstrate core competencies in their advanced practice specialties
- 2. Integrate nursing and related sciences into the delivery of advanced nursing care to diverse populations and systems of health care delivery
- 3. Apply ethical analysis and clinical reasoning to assess, intervene and evaluate advanced nursing care delivery
- 4. Understand the implications of social, cultural, economic, policy and organizational systems that impact practice and outcomes
- Synthesize evidence for practice to determine appropriate application of interventions across diverse populations and settings
- Use quality processes and improvement science to evaluate care and ensure patient safety for individuals, populations and systems
- 7. Integrate organizational science and technology to make changes in the care environment to improve health outcomes and practice efficiency

Family nurse practitioner concentration

For registered nurses interested in providing primary health care to patients of all ages, the family nurse practitioner program offers a flexible and rewarding career path. First launched as a certificate program in 1974, the VCU School of Nursing FNP concentration within the Post-master's Certificate in Nursing program prepares graduates to assess, diagnose and manage common health problems as well as maximize the health and well-being of individuals and families across the life span. Using comprehensive physical and psychosocial assessments, diagnostic reasoning, advanced-practice skills and procedures, and evidence-based treatment strategies, VCU School of Nursing graduates with the FNP concentration are prepared to provide direct care to individuals and families in a variety of primary care settings.

Students who successfully complete the FNP concentration within the master's program are eligible to apply for certification as a family nurse practitioner by both national certifying bodies: the American Nurses Credentialing Center and the American Academy of Nurse Practitioners.

Degree requirements

Fifty-five credit hours are required for the family nurse practitioner concentration.

In addition to general VCU Graduate School graduation requirements, a candidate for the degree of Master of Science in Nursing must be recommended by the faculty and must:

- 1. Meet academic requirements of the Graduate School
- Complete all requirements for the prescribed curriculum within six calendar years of the first registration for work to be credited toward the degree
- 3. Earn a minimum grade of B or pass grade in all nursing courses
- Earn a minimum cumulative grade-point average of 3.0 on a 4.0 scale in all work presented for graduation

Conform to School of Nursing policies in respect to pass/fail grading for course work or thesis study

The degree will be granted only after all requirements have been fulfilled and all fees to the university have been paid. Degrees are not granted in absentia unless written request is made to the dean and permission is granted.

Curriculum requirements

Courses	Credit hours
Core courses	
NURS 501 Advanced Professionalization I	1
NURS 502 Advanced Nursing Practice: Pharmacotherapeutics	3
NURS 503 Ethics, Advanced Nursing Practice and the Health Care Environment	3
NURS 504 Advanced Nursing Practice: The Biological Basis of Health and Illness Across the Lifespan	3
NURS 507 Health Promotion and Disease Prevention Across the Lifespan	4
NURS 508 Policy, Processes and Systems for Advanced Nursing Practice	3
NURS 511 Health Assessment for Advanced Nursing Practice	3
NURS 512 Evidence-based Advanced Nursing Practice	3
NURS 601 Advanced Professionalization II	1
Concentration courses	
NURS 611 Primary Care Advanced Practice Clinical Procedures	1
NURS 627 Foundational Perspectives of Family-centered Care	2
NURS 629 Common Health Problems in Primary Care Across the Lifespan I	4
NURS 630 Common Health Problems in Primary Care Across the Lifespan II	4
NURS 631 Primary Care of Select Populations	2
NURS 643 Family Primary Care Practicum I	6
NURS 644 Family Primary Care Seminar	1
NURS 645 Family Primary Care Practicum II	6
NURS 646 Family Primary Care Final Synthesis	1
Total graduate credit hours required (minimum)	51

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Degree candidacy requirements



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Graduation requirements



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Graduate program director

Ann B. Hamric, Ph.D., R.N., F.A.A.N. Professor and associate dean of academic programs abhamric@vcu.edu (804) 828-3968

Additional contact

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Nursing, Master of Science (M.S.) with a concentration in psychiatric-mental health nurse practitioner

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Admission requirements

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Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE scores are
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- Be a national model for clinical scholarship (development and dissemination) in the use of simulation, technology and innovation for best practices in education and practice
- Provide services that benefit the profession and promote the health and wellbeing of diverse individuals, families and communities

Ranked in the top 10 percent of graduate nursing programs by U.S. News and World Report, the VCU School of Nursing master's degree program provides a world-class learning experience that prepares nurses to become leaders in advanced nursing practice. The master's program provides nurses with a solid foundation in the specialized knowledge and advanced practice skills that are needed to care for diverse patient populations with complex health problems across the health-illness continuum. In addition, students partner with interprofessional groups to develop expertise in team-based, patient-centered health care, while also gaining valuable leadership and collaborative skills. The curriculum at VCU prepares graduates who can engage in transformative nursing, not only as leaders who are committed to nursing excellence, but also as practitioners who are committed to the health and well-being of the patients they

VCU School of Nursing offers both direct and indirect patient care concentrations. Our direct patient care concentrations include adult-gerontology acute care NP, adult-gerontology primary care NP, family NP, and psychiatric-mental health NP. One indirect patient care concentration is offered in nursing administration and leadership.

Student learning outcomes

Master's students will achieve advanced nursing practice competencies by demonstrating:

- 1. Systems and organizational leadership
- 2. Implementation of advanced nursing practice interventions
- Effective use of research and technology

4. Systematic evaluation of interventions and outcomes

Graduates will be able to:

- 1. Demonstrate core competencies in their advanced practice specialties
- 2. Integrate nursing and related sciences into the delivery of advanced nursing care to diverse populations and systems of health care delivery
- 3. Apply ethical analysis and clinical reasoning to assess, intervene and evaluate advanced nursing care delivery
- 4. Understand the implications of social, cultural, economic, policy and organizational systems that impact practice and outcomes
- Synthesize evidence for practice to determine appropriate application of interventions across diverse populations and settings
- Use quality processes and improvement science to evaluate care and ensure patient safety for individuals, populations and systems
- 7. Integrate organizational science and technology to make changes in the care environment to improve health outcomes and practice efficiency

Nursing administration and leadership concentration

For registered nurses interested in a leadership role in a health care organization, the nursing administration and leadership concentration offers a flexible and rewarding career path. Over the past three decades, this concentration has gained a reputation for educating some of the nation's top nursing leaders. With a vision of shaping the future of health care through innovative nursing leadership, the NAL concentration prepares nurses to play an essential systems-level role in promoting and sustaining high-quality and safe patient care. Students gain advanced knowledge and skills in the areas of leadership, administration, management, health care finance, budgeting, outcomes management and evidence-based organizational practices in health care.

Students who successfully complete the NAL concentration within the master's program are prepared to succeed in a nursing leadership position and are eligible, depending on employment role, to apply for several different nursing administration certification exams offered through the American Nurses Credentialing Center of the American Nurses Association or the American Organization of Nurse Executives.

Degree requirements

Thirty-seven graduate credit hours are required for the nurse administration and leadership concentration.

In addition to general VCU Graduate School graduation requirements, a candidate for the degree of Master of Science in Nursing must be recommended by the faculty and must:

- 1. Meet academic requirements of the Graduate School
- Complete all requirements for the prescribed curriculum within six calendar years of the first registration for work to be credited toward the degree
- 3. Earn a minimum grade of B or pass grade in all nursing courses
- 4. Earn a minimum cumulative grade-point average of 3.0 on a 4.0 scale in all work presented for graduation
- Conform to School of Nursing policies in respect to pass/fail grading for course work or thesis study

The degree will be granted only after all requirements have been fulfilled and all fees to the university have been paid. Degrees are not granted in absentia unless written request is made to the dean and permission is granted.

Curriculum requirements

Courses Credit

Core courses

NURS 503 Ethics, Advanced Nursing Practice and the Health Care 3 Environment

NURS 505 Advanced Nursing Practice: Foundations in Health Care 3 Finance

NURS 508 Policy, Processes and Systems for Advanced Nursing Practice	3
NURS 512 Evidence-based Advanced Nursing Practice	3
Concentration courses	
NURS 655 Nurse as Leader	2
NURS 680 Leading People	3
NURS 681 Nurses as Organizational Leaders	3
NURS 687 Management Systems and Health Care Outcomes	4
NURS 690 Application of Financial Concepts	4
NURS 692 Integrative Administrative Systems Practicum I	2
NURS 693 Integrative Administrative Systems Practicum II	2
NURS 694 Integrative Administrative Systems Practicum III	2
Accounting elective (to be approved by adviser)	3

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

VCU School of Nursing Student Policy and Information handbooks are located on the school's website.

Nursing, Master of Science (M.S.) with a concentration in psychiatric-mental health nurse practitioner

Program accreditation

Accreditation Commission for Education in Nursing

Graduate program director

Ann B. Hamric, Ph.D., R.N., F.A.A.N. Professor and associate dean of academic programs abhamric@vcu.edu (804) 828-3968

Additional contact

Susan L. Lipp, M.S.N., R.N. Assistant dean for enrollment and student services

slipp@vcu.edu

(804) 828-5171

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Program website: nursing.vcu.edu/education/masters

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Nursing, Master of Science (M.S.) with a concentration in adult-gerontology acute care nurse practitioner

Nursing, Master of Science (M.S.) with a concentration in adult-gerontology primary care nurse practitioner

Nursing, Master of Science (M.S.) with a concentration in family nurse practitioner

Nursing, Master of Science (M.S.) with a concentration in nursing administration and leadership

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Nursing, Master of Science (M.S.) with a concentration in psychiatric-mental health nurse practitioner			
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE scores are
	Fall	Mar 15	required if cumulative undergraduate GPA is less than 3.25

In addition to the general admission requirements of the VCU Graduate School, applicants must:

- 1. Be eligible for readmission or in good standing at the last college attended
- Have a baccalaureate degree in nursing from a U.S. ACEN- or CCNEaccredited program or an international equivalent
- 3. Have a current unencumbered R.N. license or an authorization to practice as an R.N. in Virginia, the District of Columbia, or a U.S. possession or territory
- 4. Have a minimum cumulative GPA of 2.7 on all college course work
- 5. Complete an undergraduate statistics course
- 6. Provide GRE scores if cumulative undergraduate GPA is less than 3.25
- Submit online VCU Graduate Application (electronically), School of Nursing supplemental application materials and all required documents by posted deadline

School of Nursing B.S. graduates of the VCU Honors College are eligible for automatic admission to the master's program or the post-B.S. to Ph.D. program upon submission of an application form and personal statement. Requirements for GRE scores and references are waived.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The mission of the School of Nursing is to improve health and the human condition through leadership in nursing research, education and service. Therefore we will:

- 1. Sustain our tradition of leadership in educational excellence by preparing future scholars and leaders for nursing and health care
- 2. Be a nationally influential center in the development, translation and dissemination of science in biobehavioral clinical research
- 3. Be a national model for collaboration and partnerships between nursing education and nursing service in academic medical centers
- Be a national model for clinical scholarship (development and dissemination) in the use of simulation, technology and innovation for best practices in education and practice
- Provide services that benefit the profession and promote the health and wellbeing of diverse individuals, families and communities

Ranked in the top 10 percent of graduate nursing programs by U.S. News and World Report, the VCU School of Nursing master's degree program provides a world-class learning experience that prepares nurses to become leaders in advanced nursing practice. The master's program provides nurses with a solid foundation in the specialized knowledge and advanced practice skills that are needed to care for diverse patient populations with complex health problems across the health-illness continuum. In addition, students partner with interprofessional groups to develop expertise in team-based, patient-centered health care, while also gaining valuable leadership and collaborative skills. The curriculum at VCU prepares graduates who can engage in transformative nursing, not only as leaders who are committed to nursing excellence, but also as practitioners who are committed to the health and well-being of the patients they serve.

VCU School of Nursing offers both direct and indirect patient care concentrations. Our direct patient care concentrations include adult-gerontology acute care NP, adult-gerontology primary care NP, family NP, and psychiatric-mental health NP. One indirect patient care concentration is offered in nursing administration and leadership.

Student learning outcomes

Master's students will achieve advanced nursing practice competencies by demonstrating:

- 1. Systems and organizational leadership
- 2. Implementation of advanced nursing practice interventions
- 3. Effective use of research and technology
- 4. Systematic evaluation of interventions and outcomes

Graduates will be able to:

- 1. Demonstrate core competencies in their advanced practice specialties
- 2. Integrate nursing and related sciences into the delivery of advanced nursing care to diverse populations and systems of health care delivery
- Apply ethical analysis and clinical reasoning to assess, intervene and evaluate advanced nursing care delivery
- 4. Understand the implications of social, cultural, economic, policy and organizational systems that impact practice and outcomes
- Synthesize evidence for practice to determine appropriate application of interventions across diverse populations and settings
- 6. Use quality processes and improvement science to evaluate care and ensure patient safety for individuals, populations and systems
- Integrate organizational science and technology to make changes in the care environment to improve health outcomes and practice efficiency

Psychiatric-mental health nurse practitioner concentration

The psychiatric-mental health nurse practitioner concentration prepares graduates for roles as nurse practitioners in psychiatric-mental health nursing. This concentration focuses on psychopharmacologic and psychotherapeutic management and treatment of common mental health problems and psychiatric disorders seen across the lifespan. Graduates use evidence-based guidelines to

assess and intervene in response to the psychiatric, psychosocial and psychoeducational needs of individuals, families and groups. Students who successfully complete the psychiatric-mental health nurse practitioner program are eligible to apply for the psychiatric and mental health nurse practitioner certification exam administered by the American Nurses Credentialing Center. Psychiatric-mental health nurse practitioners are prepared to diagnose and treat individuals with psychiatric and/or substance abuse disorders, as well as address the mental health problems that often go along with medical illness.

Degree requirements

Forty-seven graduate credit hours are required for the psychiatric-mental health nurse practitioner concentration.

In addition to general VCU Graduate School graduation requirements, a candidate for the degree of Master of Science in Nursing must be recommended by the faculty and must:

- 1. Meet academic requirements of the Graduate School
- Complete all requirements for the prescribed curriculum within six calendar years of the first registration for work to be credited toward the degree
- 3. Earn a minimum grade of B or pass grade in all nursing courses
- Earn a minimum cumulative grade-point average of 3.0 on a 4.0 scale in all work presented for graduation
- Conform to School of Nursing policies in respect to pass/fail grading for course work or thesis study

The degree will be granted only after all requirements have been fulfilled and all fees to the university have been paid. Degrees are not granted in absentia unless written request is made to the dean and permission is granted.

Curriculum requirements

Courses	hours
Core courses	
NURS 501 Advanced Professionalization I	1
NURS 502 Advanced Nursing Practice: Pharmacotherapeutics	3
NURS 503 Ethics, Advanced Nursing Practice and the Health Care Environment	3
NURS 504 Advanced Nursing Practice: The Biological Basis of Health and Illness Across the Lifespan	3
NURS 507 Health Promotion and Disease Prevention Across the Lifespan	4
NURS 508 Policy, Processes and Systems for Advanced Nursing Practice	3
NURS 511 Health Assessment for Advanced Nursing Practice	3
NURS 512 Evidence-based Advanced Nursing Practice	3
NURS 601 Advanced Professionalization II	1
Concentration courses	
NURS 635 Advanced Practice Psychiatric Mental Health Nursing Practicum I	6
NURS 636 Advanced Practice Psychiatric Mental Health Nursing Seminar	3
NURS 637 Advanced Practice Psychiatric Mental Health Nursing Practicum II	6
NURS 656 Diagnosis and Psychopharmacologic Treatment of Psychiatric Disorders Across the Lifespan	4
NURS 657 Advanced Practice Psychiatric Mental Health Nursing: Theory and Practice Across the Lifespan	4

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing

Total graduate credit hours required (minimum)

47

master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

VCU School of Nursing Student Policy and Information handbooks are located on the school's website.



2014-15 Graduate and Professional Programs Bulletin

School of Pharmacy

The School of Pharmacy was established officially in 1898; the University College of Medicine had a school of pharmacy when it opened in 1893. The two-year curriculum gave way to a three-year program in 1925, and in 1932 the school required four years of college work and a Bachelor of Science degree was awarded. In 1960, the program lengthened to a five-year course leading to a Bachelor of Science in Pharmacy degree. In 1975, authority was granted to offer to selected students a six-year program leading to the Doctor of Pharmacy degree and this program was adopted as the only professional offering by the school in 1995. The School of Pharmacy currently enrolls students in a four-year professional Doctor of Pharmacy program curriculum following completion of at least three years of pre-professional studies taken at VCU or elsewhere. In 1996 a part-time program was offered that permits current Bachelor of Science in Pharmacy degree holders to earn the Doctor of Pharmacy degree in a nontraditional format requiring students to come to campus infrequently. This program is in the process of being phased out and no longer accepts students for enrollment. Since 1971, all pharmacy students have participated in a clerkship program (now referred to as advanced pharmacy practice experiences) during the final year of the curriculum. Beginning 2008, the school added introductory pharmacy practice experiences during the first three years of the program to gradually transition the student from the academic classroom setting into the practice arena. Students spend their final year in a variety of practice settings under the supervision of highly qualified faculty preceptors.

The authority to award graduate degrees in the pharmaceutical sciences was granted by the Graduate Council in 1952. Departments in the school have the responsibility for administering a graduate program leading to the M.S. and Ph.D. in Pharmaceutical Sciences. This program includes areas of specialization in medicinal chemistry, pharmaceutics, pharmacotherapy and pharmacy administration. These programs provide the preparation and research experience for academic, governmental and industrial careers. Graduate degrees in pharmaceutical sciences do not provide eligibility for licensure as a pharmacist.

Students may elect to pursue a joint Pharm.D./M.S., Pharm.D./Ph.D., Pharm.D./M.B.A. or Pharm.D./M.P.H. program. Such students must apply to, and be accepted by, both programs separately.

Administration

410 N. 12th St. P.O. Box 980581 Richmond, VA 23298-0581 (804) 828-3000 Fax (804) 827-0002 http://www.pharmacy.vcu.edu

Victor A. Yanchick

Dean

Michael J. Clarke

Assistant Dean for INOVA Campus

Jeffrey C. Delafuente

Associate Dean for Professional Education

Gary R. Matzke

Associate Dean for Professional Education

Phylliss M. Moret

Assistant Dean for Experiential Education

Thomas P. Reinders

Associate Dean for Admissions and Student Affairs

Regina D. Scott

Interim Assistant Dean for Finance and Adminstration

Accreditation and Complainant policy

Pharmacy (Pharm.D.) accreditation

The Doctor of Pharmacy degree program at the Virginia Commonwealth University School of Pharmacy is fully accredited by the Accreditation Council for Pharmacy Education (ACPE), 20 N. Clark St., Suite 2500, Chicago, IL 60602-5109. Accreditation standards are available in the school's Office of Admissions and Student Services and via the ACPE website at www.acpeaccredit.org. Additionally, the school is a member of the American Association of Colleges of Pharmacy.

Complainant policy

ACPE has an obligation to assure itself that any institution that seeks accreditation status for its professional degree program conducts its affairs with honesty and frankness. Students who have complaints about the school's ability to meet accreditation standards or adhere to ACPE policies and procedures shall be submitted in writing to the Associate Dean for Admissions and Student Services, VCU School of Pharmacy, 410 N. 12th St., Room 500, Richmond, VA 23298-0581. The complainant is welcome to make an appointment to meet with school administrators to discuss his or her complaints and options for resolution. If they are not satisfied with the response by the school's representative/s, then complainants may contact ACPE at 135 S. LaSalle St., Suite 4100, Chicago, IL 60603 or www.acpe-accredit.org/complaints with a complaint. A record of written complaints about the school's adherence to ACPE accreditation standards or policies and procedures will be maintained for ACPE to review at the time of an accreditation site visit.

Statement of purpose

The School of Pharmacy at Virginia Commonwealth University exists to provide exceptional programs benefiting the commonwealth of Virginia and society by offering the highest quality education and training for the development of health care practitioners, scientists, professional leaders and responsible citizens. These individuals are committed to shaping the health care world of tomorrow while serving society's health care needs today.

Mission statement

The mission of the VCU School of Pharmacy fully supports the mission and goals of the university and the Medical College of Virginia Campus. The school's mission is to provide professional, graduate and postgraduate education, conduct pharmaceutical and biomedical research, and provide patient care and public service.

The school strives to provide an educational environment that encourages the following:

- · Excellence in scholarship
- Excellence in teaching
- · Diversity and respect among students and faculty
- · Commitment to the various needs of students
- Commitment to service within the school, the university, the profession and the community
- Quality direct patient care experiences within the curriculum
- · Commitment to fostering the concept and importance of lifelong learning

Therefore, the school shares with teaching, the interdependent and almost inseparable objectives of research, service and patient care.

Philosophy

In developing the curriculum of the School of Pharmacy, the faculty recognizes that an educated person should be prepared to assume a responsible and rewarding role in society. The new paradigm of pharmaceutical care guides the school's curriculum committee and faculty in the design and implementation of the curriculum. Pharmaceutical care is the responsible provision of drug therapy by the pharmacist for the purpose of achieving definite outcomes that improve a patient's quality of life. In professional practice pharmaceutical care focuses on the pharmacist's attitudes, behaviors, commitment, concerns, ethics, functions, knowledge, responsibilities and skills in the provision of drug therapy, which achieve outcomes that yield improvement in a patient's quality of life. The educational program is designed to provide a sound, scientific and professional background for both those who will enter the practice of pharmacy directly and those who wish to continue graduate education in the pharmaceutical sciences. It also includes courses in the arts and humanities in order to provide the student with a broad educational base that will permit participation in community life, not only as a professional, but also as an informed, concerned citizen. The professional curriculum is rigorous and highly demanding of the student's time; employment must not be allowed to interfere with the educational process. The faculty has adopted a document entitled "Expected Competencies of Doctor of Pharmacy Graduates" and has expanded these competencies into knowledge, skills and attitudes that have been implemented in the curriculum.

Career opportunities

Graduation from the School of Pharmacy with a professional degree affords the opportunity to pursue one of several career paths. The most familiar role is as a provider of pharmaceutical care to ambulatory patients in a community setting. In this setting the pharmacist may be self-employed or may be an employee of an organization such as an independent pharmacy, a corporate chain of pharmacies or a managed care pharmacy in a health maintenance organization.

Many pharmacists also practice in institutional settings such as hospitals or other health care institutions.

The pharmaceutical industry also employs pharmacists in several areas including manufacturing, quality control, research, sales and as medical service representatives who call on physicians. Opportunities also are available in various government services, such as public health and veterans affairs, as well as in government-operated laboratories.

In most cases, those who aspire to engage in independent research or to teach seek graduate degrees in the pharmaceutical sciences or in specialty fields related to pharmacy, or they complete pharmacy residency or fellowship program.

The American Pharmacists Association Pathway Evaluation Program provides information about the many areas of pharmacy practice. The program offers an interactive assessment tool and extensive background information about the pharmacy profession. Individuals interested in learning more about the profession are encouraged to select the Careers menu on the APhA website at www.pharmacist.com.

Facilities

The School of Pharmacy is located in the Robert Blackwell Smith Building at 12th and East Clay streets. This building — named in honor of a distinguished former dean of pharmacy, former president of the Medical College of Virginia and former provost of the MCV Campus - was completed in 1984 with the help of contributions from many alumni and friends of the School of Pharmacy. Additional classrooms, offices and laboratories are located in McGuire Hall and the Virginia BioTechnology Research Park, both located within a few blocks of the Smith Building.

Classes for students in pharmacy also are conducted in Sanger Hall, located between 11th and 12th streets on East Marshall Street, and McGuire Hall, located at the corner of 12th and Clay streets. In conjunction with the VCU Health System, students receive clinical experience in the VCUHS's MCV Hospitals and clinics. Other facilities available for teaching include area hospitals and pharmacies. The major library holdings are in the Tompkins-McCaw Library at 12th and East Clay streets.

Location in a major health sciences center provides excellent opportunities for interdisciplinary research and access to clinical facilities. The school is well equipped for graduate research and provides leadership to the VCU Institute for Structural Biology and Drug Discovery at the Virginia BioTechnology Research Park. The institute makes use of synthetic medicinal chemistry, X-ray crystallography, NMR, protein and nucleic acid chemistry, bacterial enzymology, and molecular pharmacology to promote drug development. Several businesses have been spawned through the institute and two new drugs have entered clinical

The Department of Pharmacy supports the Center for Drug Studies (CDS), a fully staffed facility for conducting Phase I-III research in humans.

Organizations for graduate students

Student chapter of the International Society for **Pharmacoeconomics and Outcomes Research**

This organization fosters interest among professional and graduate students in pharmacoeconomics and health outcomes assessment.

American Association of Pharmaceutical Scientists Virginia Commonwealth University Chapter

The AAPS-Virginia Commonwealth University Student Chapter was established in April 2004. Since its start, student membership has grown tremendously, with the chapter attracting students from various biological and related health fields. The chapters mission is to provide an educational outreach program for VCU students with an interest in the pharmaceutical sciences.

Organizations for professional degree students

Virginia Academy of Students of Pharmacy

Students in the School of Pharmacy have an opportunity to become members of this organization that is affiliated with the Virginia Pharmacists Association and the American Pharmacists Association. The group meets regularly presenting programs of interest to the student body.

Student Chapter Virginia Society of Health-System **Pharmacists**

Pharmacy students who are interested in the practice of pharmacy in organized health care settings may become members.

Student National Pharmaceutical Association

This student subdivision of the National Pharmaceutical Association works to define the future role of minority health professionals in the community.

Student Association of Community Pharmacists

This student organization focuses on issues of interest to students who plan to pursue careers in community pharmacy. It is affiliated with the National Community Pharmacists Association.

Student Association of Consultant and Geriatric **Pharmacists**

This organization is for students interested in geriatric pharmacy and/or long-term care and consultant pharmacy.

Student Chapter of the International Society for Pharmacoeconomics and Outcomes Research

This organization fosters interest among professional and graduate students in pharmacoeconomics and health outcomes assessment.

Christian Pharmacists Fellowship International

This student organization focuses on helping student pharmacists to grow spiritually and promote fellowship within the profession.

Fraternities for professional degree students

Chapters of Kappa Epsilon, Kappa Psi, and Phi Delta Chi are active within the student body. These fraternities extend invitations, according to the rules of the Interfraternity Council, to pharmacy students to become members. Eligibility for consideration is based upon academic achievement as determined by the Interfraternity Council and the dean's office.

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in medicinal chemistry

Graduate program director

Susanna Wu-Pong, Ph.D.

Director, pharmaceutical sciences graduate programs swupong@vcu.edu (804) 828-4328

Additional contact

Shakim Jackson Education coordinator siackson29@vcu.edu (804) 628-4408

Program website: pharmacy.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in

pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacotherapy

Pharmacology and Toxicology, Master of Science (M.S.)

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)

Pharmacy, Doctor of (Pharm.D.)

Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) [combined]

Pharmacy, Doctor of (Pharm.D.)/Business Administration, Master of (M.B.A.) [combined]

Pharmacy, Doctor of (Pharm.D.)/Public Health, Master of (M.P.H.) [combined] Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Master of Science (M.S.) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in medicinal chemistry			
Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE
	Fall	Jan 1	TOEFL (international applicants)
Special require Pharm.D. or ba	ements: chelor's degree in a related	l area	

In addition to the general admission requirements of the VCU Graduate School, applicants must have received a baccalaureate from an accredited institution in a related area, demonstrating the ability to perform at the graduate level. Prerequisite and foundation course work may be required, depending upon the applicant's discipline.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The School of Pharmacy endeavors to provide the highest quality teaching and research in the pharmaceutical sciences graduate program at the doctoral level.

Student learning outcomes

1. Knowledge of research in pharmaceutical sciences

The candidate should demonstrate a general knowledge of the elements of the pharmaceutical sciences and a detailed knowledge of his/her area of research, including an appropriate familiarity with the research literature, policies and procedures, and methodology pertaining to their field.

2. Design experiments in pharmaceutical sciences

The candidate should demonstrate an appropriate level of skill in the design of experimental protocols and the technical conduct of experimentation related to his/her research.

3. Demonstrate appropriate communication skills

The candidate should demonstrate that an appropriate level of oral, written and visual communication skills has been acquired.

4. Identify problems in pharmaceutical sciences

The candidate should demonstrate an appropriate level of skill in the identification of meaningful problems in the pharmaceutical sciences and the design of and implementation of appropriate problem-solving methods.

Degree requirements

In addition to general VCU Graduate School graduation requirements, Ph.D. students in pharmaceutical sciences must complete a minimum of 30 graduate credit hours beyond the master's degree of required (both school and department core) and elective hours. All Ph.D. students must pass the comprehensive exam in each department in order to advance to candidacy. The exam consists of a written and oral component and is administered by either the student advisory committee (oral and written) and/or department faculty (written), depending on which option the student chooses. All Ph.D. students must pass the dissertation review and defense in each department in order to graduate.

All School of Pharmacy graduate students must fulfill curricular requirements of the School of Pharmacy core curriculum and the core curriculum required by their respective options. Course work taken as part of a master's degree program may be waived; however, students must replace those courses with additional course work or directed research to meet the minimum 30 credit hour requirement for the Ph D

Curriculum requirements

Courses	Credit hours
School of Pharmacy core curriculum	
BIOS/STAT 543 Statistical Methods I or MEDC 541 Survey of	3
Molecular Modeling Methods (1 credit repeated) or MEDC 601	
Advanced Medicinal Chemistry (1 credit repeated)	
IBMS 600 Laboratory Safety or equivalent	1
OVPR 601 Scientific Integrity or equivalent	1
PCEU/MEDC/PHAR 614 Research Techniques or MEDC 526	1
Research Techniques in Medicinal Chemistry (variable credit)	(minimum)
PCEU 690 Pharmaceutics Research Seminar, MEDC 690	1
Departmental Research Seminar or PHAR 690 Pharmacy Research	(minimum)
Seminar (variable credit)	
PSCI 607-608 Introduction to Pharmaceutical Sciences From Bench to Shelf	2

In addition to the pharmaceutical sciences core courses, students must fulfill course and other degree requirements in their respective concentrations as outlined below.

Concentration

CHEM 504 Advanced Organic Chemistry I	3
MEDC 526 Research Techniques in Medicinal Chemistry	1-4

MEDC 541 Survey of Molecular Modeling Methods or CHEM 510
Atomic and Molecular Structure

MEDC 591 Special Topics in Medicinal Chemistry

1-6.5

MEDC 601 Advanced Medicinal Chemistry I

Electives

A minimum 12 elective credit hours is recommended for the Ph.D. The elective courses taken will generally be selected from a list identified by the major adviser and will be agreed upon by the major adviser and student. These electives may include courses outside the department.

Research

Students are required to complete a dissertation. The 30 credit-hour minimum directed research requirement may be waived for circumstances such as a prior M.S. degree. If waived, students must still complete minimum number of hours required for the degree.

MEDC 697 Directed Research in Medicinal Chemistry (variable credit)

(minimum)

Total graduate credit hours required (minimum)

60

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

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Graduation requirements



Other information

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Website for prospective students:

pharmacy.vcu.edu/programs/graduate/prospective-students

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmaceutics

Graduate program director Susanna Wu-Pong, Ph.D. Director, pharmaceutical sciences graduate programs

swupong@vcu.edu

(804) 828-4328

Additional contact

Shakim Jackson Education coordinator sjackson29@vcu.edu (804) 628-4408

Program website: pharmacy.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacotherapy

Pharmacology and Toxicology, Master of Science (M.S.)

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)

Pharmacy, Doctor of (Pharm.D.)

Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) [combined]

Pharmacy, Doctor of (Pharm.D.)/Business Administration, Master of (M.B.A.) [combined]

Pharmacy, Doctor of (Pharm.D.)/Public Health, Master of (M.P.H.) [combined] Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Master of Science (M.S.) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE
	Fall	May 1 (priority consideration for financial aid Feb 1)	TOEFL (international applicants)
	Spring	Oct 1	

In addition to the general admission requirements of the VCU Graduate School, applicants must have received a baccalaureate from an accredited institution in a related area, demonstrating the ability to perform at the graduate level.

Prerequisite and foundation course work may be required, depending upon the applicant's discipline.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

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 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The School of Pharmacy endeavors to provide the highest quality teaching and research in the pharmaceutical sciences graduate program at the doctoral level.

Student learning outcomes

1. Knowledge of research in pharmaceutical sciences

The candidate should demonstrate a general knowledge of the elements of the pharmaceutical sciences and a detailed knowledge of his/her area of research, including an appropriate familiarity with the research literature, policies and procedures, and methodology pertaining to their field.

2. Design experiments in pharmaceutical sciences

The candidate should demonstrate an appropriate level of skill in the design of experimental protocols and the technical conduct of experimentation related to his/her research.

3. Demonstrate appropriate communication skills

The candidate should demonstrate that an appropriate level of oral, written and visual communication skills has been acquired.

4. Identify problems in pharmaceutical sciences

The candidate should demonstrate an appropriate level of skill in the identification of meaningful problems in the pharmaceutical sciences and the design of and implementation of appropriate problem-solving methods.

Degree requirements

In addition to general VCU Graduate School graduation requirements, Ph.D. students in pharmaceutical sciences must complete a minimum of 30 graduate credit hours beyond the master's degree of required (both school and department core) and elective hours. All Ph.D. students must pass the comprehensive exam in each department in order to advance to candidacy. The exam consists of a written and oral component and is administered by either the student advisory committee (oral and written) and/or department faculty (written), depending on which option the student chooses. All Ph.D. students must pass the dissertation review and defense in each department in order to graduate.

All School of Pharmacy graduate students must fulfill curricular requirements of the School of Pharmacy core curriculum and the core curriculum required by their respective options. Course work taken as part of a master's degree program may be waived; however, students must replace those courses with additional course work or directed research to meet the minimum 30 credit hour requirement for the Ph D

Curriculum requirements

Prerequisites

All students should have prerequisite knowledge in chemistry, mathematics and biology. The following departmental courses or their equivalents are required

for admission into the Department of Pharmaceutics option. If a prospective student has not met any of the prerequisites, the course(s) may be included in the student's core course requirements upon recommendation by the prospective graduate adviser and approval by the respective course coordinator (see below).

CHEM and 409 Instrumental Analysis*	3
CHEZ 409 Instrumental Analysis Laboratory*	2
PCEU 508 Pharmacokinetics	3
PCEU 509 Pharmaceutics and Biopharmaceutics II	3

* Undergraduate prerequisite course work may not count toward the minimum 30 graduate credit hours required for the degree and may not be included in the calculation of graduate statistics, i.e., GPA, 20 percent C or below rule, etc.

Curriculum requirements

Courses	Credit hours
School of Pharmacy core curriculum	
BIOS/STAT 543 Statistical Methods I or MEDC 541 Survey of Molecular Modeling Methods (1 credit repeated) or MEDC 601 Advanced Medicinal Chemistry I (1 credit repeated)	3
IBMS 600 Laboratory Safety or equivalent	1
OVPR 601 Scientific Integrity or equivalent	1
PCEU/MEDC/PHAR 614 Research Techniques or MEDC 526 Research Techniques in Medicinal Chemistry (variable credit)	1 (minimum)
PCEU 690 Pharmaceutics Research Seminar, MEDC 690	1
Departmental Research Seminar or PHAR 690 Pharmacy Research Seminar (variable credit)	(minimum)
PSCI 607-608 Introduction to Pharmaceutical Sciences From Bench to Shelf	2
In addition to the pharmaceutical sciences core courses, students must fulfill course and other degree requirements in their respective concentrations as outlined below.	t
Composition	

Concentration

BIOS/STAT 543 Statistical Methods I	3
PCEU 612 Advanced Physical Pharmacy and Biopharmaceutics	3
PCEU 625 Pharmaceutical Analysis	2
PCEU 690 Pharmaceutics Research Seminar	1

Electives

In addition to the core curriculum above, Ph.D. students will be encouraged but not required to take elective courses. A minimum 12 elective credit hours are recommended for the Ph.D. These courses will be selected based upon individual research program needs and will be chosen through mutual consultation with the student and major adviser.

Research

Students are required to complete a dissertation. The 30 credit-hour minimum directed research requirement may be waived for circumstances such as a prior M.S. degree. If waived, students must still complete minimum number of hours required for the degree.

PCEU 697 Directed Research in Pharmaceutics (variable credit) 30 (minimum)

Total graduate credit hours required (minimum)

60

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the

student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

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Website for prospective students:

pharmacy.vcu.edu/programs/graduate/prospective-students

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacoeconomics and health outcomes

Graduate program director

Susanna Wu-Pong, Ph.D.

Director, pharmaceutical sciences graduate programs

swupong@vcu.edu

(804) 828-4328

Additional contact

Shakim Jackson

Education coordinator

sjackson29@vcu.edu

(804) 628-4408

Program website: pharmacy.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacoeconomics and health outcomes

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Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacotherapy

Pharmacology and Toxicology, Master of Science (M.S.)

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)

Pharmacy, Doctor of (Pharm.D.)

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Pharmacy, Doctor of (Pharm.D.)/Public Health, Master of (M.P.H.) [combined] Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Master of Science (M.S.) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE
	Fall	May 1 (priority TOEFL (inter- consideration for applicants) financial aid Feb 1)	TOEFL (international applicants)
	Spring	Oct 1	

In addition to the general admission requirements of the VCU Graduate School, applicants must have received a baccalaureate from an accredited institution in a related area, demonstrating the ability to perform at the graduate level. Prerequisite and foundation course work may be required, depending upon the applicant's discipline.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The School of Pharmacy endeavors to provide the highest quality teaching and research in the pharmaceutical sciences graduate program at the doctoral level.

Student learning outcomes

1. Knowledge of research in pharmaceutical sciences

The candidate should demonstrate a general knowledge of the elements of the pharmaceutical sciences and a detailed knowledge of his/her area of research, including an appropriate familiarity with the research literature, policies and procedures, and methodology pertaining to their field.

2. Design experiments in pharmaceutical sciences

The candidate should demonstrate an appropriate level of skill in the design of experimental protocols and the technical conduct of experimentation related to his/her research.

3. Demonstrate appropriate communication skills

The candidate should demonstrate that an appropriate level of oral, written and visual communication skills has been acquired.

4. Identify problems in pharmaceutical sciences

The candidate should demonstrate an appropriate level of skill in the identification of meaningful problems in the pharmaceutical sciences and the design of and implementation of appropriate problem-solving methods.

Degree requirements

In addition to general VCU Graduate School graduation requirements, Ph.D. students in pharmaceutical sciences must complete a minimum of 30 graduate credit hours beyond the master's degree of required (both school and department core) and elective hours. All Ph.D. students must pass the comprehensive exam in each department in order to advance to candidacy. The exam consists of a written and oral component and is administered by either the student advisory committee (oral and written) and/or department faculty (written), depending on which option the student chooses. All Ph.D. students must pass the dissertation review and defense in each department in order to graduate.

All School of Pharmacy graduate students must fulfill curricular requirements of the School of Pharmacy core curriculum and the core curriculum required by their respective options. Course work taken as part of a master's degree program may be waived; however, students must replace those courses with additional course work or directed research to meet the minimum 30 credit hour requirement for the Ph.D.

Curriculum requirements

Courses	Credit hours
School of Pharmacy core curriculum	
BIOS/STAT 543 Statistical Methods I or MEDC 541 Survey of	3
Molecular Modeling Methods (1 credit repeated) or MEDC 601 Advanced Medicinal Chemistry I (1 credit repeated)	
IBMS 600 Laboratory Safety or equivalent	1
OVPR 601 Scientific Integrity or equivalent	1
PCEU/MEDC/PHAR 614 Research Techniques or MEDC 526	1
Research Techniques in Medicinal Chemistry (variable credit)	(minimum)
PCEU 690 Pharmaceutics Research Seminar, MEDC 690	1
Departmental Research Seminar or PHAR 690 Pharmacy Research	(minimum)
Seminar (variable credit)	
PSCI 607-608 Introduction to Pharmaceutical Sciences From Bench to Shelf	2

In addition to the pharmaceutical sciences core courses, students must fulfill course and other degree requirements in their respective concentrations as outlined below.

Concentration

BIOS/STAT 544 Statistical Methods II or equivalent	3	
PHAR 637 Introduction to Research Methods in Pharmaceutical	3	
Sciences		
PHAR 638 Pharmaceutical Benefit Management	3	
PHAR 671 Applied Pharmacoeconomics and Outcomes Research	3	

Electives

In addition to the core curriculum above, Ph.D. students in pharmacoeconomics and health outcomes will typically be requested to take elective courses that exceed 24 credit hours in an area of concentration. A minimum 12 elective credit hours are recommended for the Ph.D. These courses will be selected based upon the mutual consent of the student and major adviser.

Research

Students are required to complete a dissertation. The 30 credit-hour minimum directed research requirement may be waived for circumstances such as a prior M.S. degree. If waived, students must still complete minimum number of hours required for the degree.

PHAR 697 Directed Research in Pharmacy (variable credit)

30 (minimum)

Total graduate credit hours required (minimum)

60

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

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Graduation requirements



Other information

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Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacotherapy

Graduate program director

Susanna Wu-Pong, Ph.D.

Director, pharmaceutical sciences graduate programs

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Additional contact

Shakim Jackson Education coordinator sjackson29@vcu.edu (804) 628-4408

Program website: pharmacy.vcu.edu

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Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)

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Pharmacy, Doctor of (Pharm.D.)/Business Administration, Master of (M.B.A.) [combined]

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Admission requirements

Pharmaceutica pharmacother	al Sciences, Doctor of Phi apy	losophy (Ph.D.) with a c	concentration in
Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE
	Fall	May 1 (priority consideration for financial aid Feb 1)	TOEFL (international applicants)
	Spring	Oct 1	
Special require Pharm.D. or ba	ements: chelor's degree in a related	l area	

In addition to the general admission requirements of the VCU Graduate School, applicants must have received a baccalaureate from an accredited institution in a related area, demonstrating the ability to perform at the graduate level. Prerequisite and foundation course work may be required, depending upon the applicant's discipline.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The School of Pharmacy endeavors to provide the highest quality teaching and research in the pharmaceutical sciences graduate program at the doctoral level.

Student learning outcomes

1. Knowledge of research in pharmaceutical sciences

The candidate should demonstrate a general knowledge of the elements of the pharmaceutical sciences and a detailed knowledge of his/her area of research, including an appropriate familiarity with the research literature, policies and procedures, and methodology pertaining to their field.

2. Design experiments in pharmaceutical sciences

The candidate should demonstrate an appropriate level of skill in the design of experimental protocols and the technical conduct of experimentation related to his/her research.

3. Demonstrate appropriate communication skills

The candidate should demonstrate that an appropriate level of oral, written and visual communication skills has been acquired.

4. Identify problems in pharmaceutical sciences

The candidate should demonstrate an appropriate level of skill in the identification of meaningful problems in the pharmaceutical sciences and the design of and implementation of appropriate problem-solving methods.

Degree requirements

In addition to general VCU Graduate School graduation requirements, Ph.D. students in pharmaceutical sciences must complete a minimum of 30 graduate credit hours beyond the master's degree of required (both school and department core) and elective hours. All Ph.D. students must pass the comprehensive exam in each department in order to advance to candidacy. The exam consists of a written and oral component and is administered by either the student advisory committee (oral and written) and/or department faculty (written), depending on which option the student chooses. All Ph.D. students must pass the dissertation review and defense in each department in order to graduate.

All School of Pharmacy graduate students must fulfill curricular requirements of the School of Pharmacy core curriculum and the core curriculum required by their respective options. Course work taken as part of a master's degree program may be waived; however, students must replace those courses with additional course work or directed research to meet the minimum 30 credit hour requirement for the Ph.D.

Curriculum requirements

Courses	Credit hours	
School of Pharmacy core curriculum		
BIOS/STAT 543 Statistical Methods I or MEDC 541 Survey of	3	
Molecular Modeling Methods (1 credit repeated) or MEDC 601		
Advanced Medicinal Chemistry I (1 credit repeated)		
IBMS 600 Laboratory Safety or equivalent	1	

OVPR 601 Scientific Integrity or equivalent
PCEU/MEDC/PHAR 614 Research Techniques or MEDC526
Research Techniques (variable credit) (minimum)
PCEU 690 Pharmaceutics Research Seminar, MEDC 690 1
Departmental Research Seminar or PHAR 690 Pharmacy Research
Seminar (variable credit)
PSCI 607-608 Introduction to Pharmaceutical Sciences From Bench to Shelf

In addition to the pharmaceutical sciences core courses, students must fulfill course and other degree requirements in their respective concentrations as outlined below.

Concentration

BIOS/STAT 544 Statistical Methods II or equivalent	3
PHAR 626 Advanced Pharmacotherapy Research Methods	3
PHAR 637 Introduction to Research Methods in Pharmaceutical	3
Sciences	

Electives

In addition to the core curriculum above, a minimum 12 elective credit hours are recommended for the Ph.D. These courses will be selected based upon the mutual consent of the student and major adviser.

Research

Students are required to complete a dissertation. The 30 credit-hour minimum directed research requirement may be waived for circumstances such as a prior M.S. degree. If waived, students must still complete minimum number of hours required for the degree.

PHAR 697 Directed Research in Pharmacy (variable credit)

30 (minimum)

Total graduate credit hours required (minimum)

60

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

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Graduation requirements



Other information

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Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in medicinal chemistry

Graduate program director

Susanna Wu-Pong, Ph.D.

Director, pharmaceutical sciences graduate programs

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Additional contact

Shakim Jackson

Education coordinator

sjackson29@vcu.edu

(804) 628-4408

Program website: pharmacy.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmaceutics

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Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in medicinal chemistry

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Pharmacy, Doctor of (Pharm.D.)/Public Health, Master of (M.P.H.) [combined] Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Master of Science (M.S.) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Pharmaceutica chemistry	al Sciences, Master of (M	.P.S.) with a concentra	tion in medicinal
Degree: M.P.S.	Semester(s) of entry: Fall	Deadline dates: Jan 1	Test requirements: GRE TOEFL (international applicants)
Special require Pharm.D. or ba	ements: chelor's degree in a related	l area	

In addition to the general admission requirements of the VCU Graduate School, applicants must have received a Doctor of Pharmacy (Pharm.D.) or a bachelor's degree in a related area from an accredited college or university.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The School of Pharmacy endeavors to provide the highest quality teaching and research in the pharmaceutical sciences graduate program at the Master of Pharmaceutical Sciences level.

Student learning outcomes

1. Knowledge of research in pharmaceutical sciences

Candidates should demonstrate a general knowledge of the elements of the pharmaceutical sciences and a detailed knowledge of their areas of research, including an appropriate familiarity with the research literature, policies and procedures, and methodology pertaining to their fields.

2. Design experiments in pharmaceutical sciences

Candidates should demonstrate an appropriate level of skill in the design of experimental protocols and the technical conduct of experimentation related to their research.

3. Demonstrate appropriate communication skills

Candidates should demonstrate that an appropriate level of oral, written and visual communication skills has been acquired.

4. Identify problems in pharmaceutical sciences

Candidates should demonstrate an appropriate level of skill in the identification of meaningful problems in the pharmaceutical sciences and the design of and implementation of appropriate problem-solving methods.

Degree requirements

In addition to general VCU Graduate School graduation requirements, all School of Pharmacy graduate students must fulfill the curricular requirements of the School of Pharmacy core curriculum and the core curriculum required by their respective options. In order to graduate, M.P.S. students must complete a minimum of 30 graduate credit hours of required and elective course work and must pass the project review and defense in each department.

Curriculum requirements

Courses	Credit hours
School of Pharmacy core curriculum	
BIOS/STAT 543 Statistical Methods I or MEDC 541 Survey of	3
Molecular Modeling Methods (1 credit repeated) or MEDC 601	
Advanced Medicinal Chemistry I (1 credit repeated)	
IBMS 600 Laboratory Safety or equivalent	1
OVPR 601 Scientific Integrity or equivalent	1
PCEU/MEDC/PHAR 614 Research Techniques or MEDC 526	1
Research Techniques in Medicinal Chemistry (variable credit)	(minimum)
PCEU 690 Pharmaceutics Research Seminar, MEDC 690	1
Departmental Research Seminar or PHAR 690 Pharmacy Research	(minimum)
Seminar (variable credit)	
PSCI 607-608 Introduction to Pharmaceutical Sciences From Bench	2
to Shelf	

In addition to the pharmaceutical sciences core courses, students must fulfill course and other degree requirements in their respective concentrations as outlined below.

Concentration

CHEM 504 Advanced Organic Chemistry I	3
MEDC 526 Research Techniques in Medicinal Chemistry	1-4
MEDC 541 Survey of Molecular Modeling Methods or CHEM 510	1-3
Atomic and Molecular Structure	
MEDC 591 Special Topics in Medicinal Chemistry	1-3.5
MEDC 601 Advanced Medicinal Chemistry I	1

Electives

A minimum of six elective credit hours is recommended for the M.P.S. The elective courses taken will generally be selected from a list identified by the major adviser and will be agreed upon by the major adviser and student. Electives may include courses outside the department.

Research

Students are required to complete a project. The six credit-hour minimum directed research requirement may be waived for circumstances such as a prior related degree. If waived, students must still complete minimum number of hours required for the degree.

PHAR 697 Directed Research in Pharmacy, MEDC 697 Directed 6
Research in Medicinal Chemistry or PCEU 697 Directed Research in (minimum)
Pharmaceutics (variable credit)

Total graduate credit hours required (minimum) 30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

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Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmaceutics

Graduate program director

Susanna Wu-Pong, Ph.D.

Director, pharmaceutical sciences graduate programs

swupong@vcu.edu

(804) 828-4328

Additional contact

Shakim Jackson

Education coordinator

sjackson29@vcu.edu

(804) 628-4408

Program website: pharmacy.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacotherapy

Pharmacology and Toxicology, Master of Science (M.S.)

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)

Pharmacy, Doctor of (Pharm.D.)

Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

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Pharmacy, Doctor of (Pharm.D.)/Business Administration, Master of (M.B.A.) [combined]

Pharmacy, Doctor of (Pharm.D.)/Public Health, Master of (M.P.H.) [combined] Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Master of Science (M.S.) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree: M.P.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE
	Fall	May 1 (priority consideration for financial aid Feb 1)	TOEFL (international applicants)
		Oct 1	
	Spring		

In addition to the general admission requirements of the VCU Graduate School, applicants must have received a baccalaureate from an accredited institution in a related area, demonstrating the ability to perform at the graduate level. Prerequisite and foundation course work may be required, depending upon the applicant's discipline.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The School of Pharmacy endeavors to provide the highest quality teaching and research in the pharmaceutical sciences graduate program at the Master of Pharmaceutical Sciences level.

Student learning outcomes

1. Knowledge of research in pharmaceutical sciences

Candidates should demonstrate a general knowledge of the elements of the pharmaceutical sciences and a detailed knowledge of their areas of research, including an appropriate familiarity with the research literature, policies and procedures, and methodology pertaining to their fields.

2. Design experiments in pharmaceutical sciences

Candidates should demonstrate an appropriate level of skill in the design of experimental protocols and the technical conduct of experimentation related to their research.

3. Demonstrate appropriate communication skills

Candidates should demonstrate that an appropriate level of oral, written and visual communication skills has been acquired.

4. Identify problems in pharmaceutical sciences

Candidates should demonstrate an appropriate level of skill in the identification of meaningful problems in the pharmaceutical sciences and the design of and implementation of appropriate problem-solving methods.

Degree requirements

In addition to general VCU Graduate School graduation requirements, all School of Pharmacy graduate students must fulfill the curricular requirements of the School of Pharmacy core curriculum and the core curriculum required by their respective options. In order to graduate, M.P.S. students must complete a minimum of 30 graduate credit hours of required and elective course work and must pass the project review and defense in each department.

Prerequisites

All students should have prerequisite knowledge in chemistry, mathematics and biology. The following departmental courses or their equivalents are required for admission into the Department of Pharmaceutics option. If a prospective student has not met any of the prerequisites, the course(s) may be included in the student's core course requirements upon recommendation by the prospective graduate adviser and approval by the respective course coordinator (see below).

CHEM and 409 Instrumental Analysis*	3
CHEZ 409 Instrumental Analysis Laboratory*	2
PCEU 507 Pharmaceutics and Biopharmaceutics I (except pharmaceutical	3
calculus)	
PCEU 508 Pharmacokinetics	3
PCEU 509 Pharmaceutics and Biopharmaceutics II	3

^{*} Undergraduate prerequisite course work may not count toward the minimum 30 graduate credit hours required for the degree and may not be included in the calculation of graduate statistics, i.e., GPA, 20 percent C or below rule, etc.

Curriculum requirements

Courses	Credit hours
School of Pharmacy core curriculum	
BIOS/STAT 543 Statistical Methods I or MEDC 541 Survey of Molecular Modeling Methods (1 credit repeated) or MEDC 601 Advanced Medicinal Chemistry I (1 credit repeated)	3
IBMS 600 Laboratory Safety or equivalent	1
OVPR 601 Scientific Integrity or equivalent	1
PCEU/MEDC/PHAR 614 Research Techniques or MEDC 526 Research Techniques in Medicinal Chemistry (variable credit)	1 (minimum)
PCEU 690 Pharmaceutics Research Seminar, MEDC 690	1
Departmental Research Seminar or PHAR 690 Pharmacy Research Seminar (variable credit)	(minimum)
PSCI 607-608 Introduction to Pharmaceutical Sciences From Bench to Shelf	2

In addition to the pharmaceutical sciences core courses, students must fulfill course and other degree requirements in their respective concentrations as outlined below.

Concentration

BIOS/STAT 543 Statistical Methods I	3
PCEU 612 Advanced Physical Pharmacy and Biopharmaceutics	3
PCEU 625 Pharmaceutical Analysis	2
PCEU 690 Pharmaceutics Research Seminar	1

Electives

A minimum of six elective credit hours is recommended for the M.P.S. The elective courses taken will generally be selected from a list identified by the major adviser and will be agreed upon by the major adviser and student. These electives may include courses outside the department.

Research

Students are required to complete a project. The six credit-hour minimum directed research requirement may be waived for circumstances such as a prior related degree. If waived, students must still complete minimum number of hours required for the degree.

PCEU 697 Directed Research in Pharmaceutics (variable credit)

6 (minimum)

6

Total graduate credit hours required (minimum)

30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

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Graduation requirements



Other information

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pharmacy.vcu.edu/programs/graduate/current-students Website for prospective students:

pharmacy.vcu.edu/programs/graduate/prospective-students

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacoeconomics and health outcomes

Graduate program director

Susanna Wu-Pong, Ph.D.
Director, pharmaceutical sciences graduate programs swupong@vcu.edu
(804) 828-4328

Additional contact

Shakim Jackson

Education coordinator sjackson29@vcu.edu (804) 628-4408

Program website: pharmacy.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacotherapy

Pharmacology and Toxicology, Master of Science (M.S.)

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)

Pharmacy, Doctor of (Pharm.D.)

Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) [combined]

Pharmacy, Doctor of (Pharm.D.)/Business Administration, Master of (M.B.A.) [combined]

Pharmacy, Doctor of (Pharm.D.)/Public Health, Master of (M.P.H.) [combined] Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Master of Science (M.S.) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacoeconomics and health outcomes			
Degree: M.P.S.	Semester(s) of entry: Fall	Deadline dates: May 1 (priority consideration for financial aid Feb 1)	Test requirements: GRE TOEFL (international applicants)
0 . 1 .	Spring	Oct 1	
Special require Pharm.D. or ba	ements: chelor's degree in a related	l area	

In addition to the general admission requirements of the VCU Graduate School, applicants must have received a baccalaureate from an accredited institution in a related area, demonstrating the ability to perform at the graduate level. Prerequisite and foundation course work may be required, depending upon the applicant's discipline.

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of the university through their elected representatives to the University Graduate

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The School of Pharmacy endeavors to provide the highest quality teaching and research in the pharmaceutical sciences graduate program at the Master of Pharmaceutical Sciences level.

Student learning outcomes

1. Knowledge of research in pharmaceutical sciences

Candidates should demonstrate a general knowledge of the elements of the pharmaceutical sciences and a detailed knowledge of their areas of research, including an appropriate familiarity with the research literature, policies and procedures, and methodology pertaining to their fields.

2. Design experiments in pharmaceutical sciences

Candidates should demonstrate an appropriate level of skill in the design of experimental protocols and the technical conduct of experimentation related to their research.

3. Demonstrate appropriate communication skills

Candidates should demonstrate that an appropriate level of oral, written and visual communication skills has been acquired.

4. Identify problems in pharmaceutical sciences

Candidates should demonstrate an appropriate level of skill in the identification of meaningful problems in the pharmaceutical sciences and the design of and implementation of appropriate problem-solving methods.

Degree requirements

In addition to general VCU Graduate School graduation requirements, all School of Pharmacy graduate students must fulfill the curricular requirements of the School of Pharmacy core curriculum and the core curriculum required by their respective options. In order to graduate, M.P.S. students must complete a minimum of 30 graduate credit hours of required and elective course work and must pass the project review and defense in each department.

Curriculum requirements

Courses	Credit hours
School of Pharmacy core curriculum	
BIOS/STAT 543 Statistical Methods I or MEDC 541 Survey of	3
Molecular Modeling Methods (1 credit repeated) or MEDC 601 Advanced Medicinal Chemistry I (1 credit repeated)	
IBMS 600 Laboratory Safety or equivalent	1
OVPR 601 Scientific Integrity or equivalent	1
PCEU/MEDC/PHAR 614 Research Techniques or MEDC 526	1
Research Techniques in Medicinal Chemistry (variable credit)	(minimum)
PCEU 690 Pharmaceutics Research Seminar, MEDC 690	1
Departmental Research Seminar or PHAR 690 Pharmacy Research Seminar (variable credit)	(minimum)
PSCI 607-608 Introduction to Pharmaceutical Sciences From Bench to Shelf	2

In addition to the pharmaceutical sciences core courses, students must fulfill course and other degree requirements in their respective concentrations as outlined below.

Concentration

BIOS/STAT 544 Statistical Methods II or equivalent	3
PHAR 637 Introduction to Research Methods in Pharmaceutical	3
Sciences	
PHAR 638 Pharmaceutical Benefit Management	3
PHAR 671 Applied Pharmacoeconomics and Outcomes Research	3

Electives

A minimum of six elective credit hours is recommended for the M.P.S. The elective courses taken will generally be selected from a list identified by the major adviser and will be agreed upon by the major adviser and student.

Research

Students are required to complete a project. The six credit-hour minimum directed research requirement may be waived for circumstances such as a prior related degree. If waived, students must still complete minimum number of hours required for the degree.

PHAR 697 Directed Research in Pharmacy (variable credit)

(minimum)

Total graduate credit hours required (minimum)

30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

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Website for prospective students:

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Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacotherapy

Graduate program director

Susanna Wu-Pong, Ph.D.

Director, pharmaceutical sciences graduate programs

swupong@vcu.edu (804) 828-4328

Additional contact

Shakim Jackson

Education coordinator

sjackson29@vcu.edu

(804) 628-4408

Program website: pharmacy.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacoeconomics and health outcomes

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Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacotherapy
Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in

pharmaceutics
Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in

pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacotherapy

Pharmacology and Toxicology, Master of Science (M.S.)

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)

Pharmacy, Doctor of (Pharm.D.)

Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

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Pharmacy, Doctor of (Pharm.D.)/Business Administration, Master of (M.B.A.) [combined]

Pharmacy, Doctor of (Pharm.D.)/Public Health, Master of (M.P.H.) [combined] Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Master of Science (M.S.) [combined]

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Admission requirements

Pharmaceutica pharmacothera	l Sciences, Master of (Mapy	.P.S.) with a concentrati	ion in
Degree: M.P.S.	Semester(s) of entry: Fall	Deadline dates: May 1 (priority consideration for financial aid Feb 1)	Test requirements: GRE TOEFL (internationa applicants)
	Spring	Oct 1	

In addition to the general admission requirements of the VCU Graduate School, applicants must have received a baccalaureate from an accredited institution in a related area, demonstrating the ability to perform at the graduate level.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The School of Pharmacy endeavors to provide the highest quality teaching and research in the pharmaceutical sciences graduate program at the Master of Pharmaceutical Sciences level.

Student learning outcomes

1. Knowledge of research in pharmaceutical sciences

Candidates should demonstrate a general knowledge of the elements of the pharmaceutical sciences and a detailed knowledge of their areas of research, including an appropriate familiarity with the research literature, policies and procedures, and methodology pertaining to their fields.

2. Design experiments in pharmaceutical sciences

Candidates should demonstrate an appropriate level of skill in the design of experimental protocols and the technical conduct of experimentation related to their research.

3. Demonstrate appropriate communication skills

Candidates should demonstrate that an appropriate level of oral, written and visual communication skills has been acquired.

4. Identify problems in pharmaceutical sciences

Candidates should demonstrate an appropriate level of skill in the identification of meaningful problems in the pharmaceutical sciences and the design of and implementation of appropriate problem-solving methods.

Degree requirements

In addition to general VCU Graduate School graduation requirements, all School of Pharmacy graduate students must fulfill the curricular requirements of the School of Pharmacy core curriculum and the core curriculum required by their respective options. In order to graduate, M.P.S. students must complete a minimum of 30 graduate credit hours of required and elective course work and must pass the project review and defense in each department.

Curriculum requirements

Courses Credit hours

3

School of Pharmacy core curriculum

BIOS/STAT 543 Statistical Methods I or MEDC 541 Survey of Molecular Modeling Methods (1 credit repeated) or MEDC 601 Advanced Medicinal Chemistry I (1 credit repeated) IBMS 600 Laboratory Safety or equivalent 1

OVPR 601 Scientific Integrity or equivalent 1

PCEU/MEDC/PHAR 614 Research Techniques or MEDC526 1

Research Techniques (variable credit) (minimum)

PCEU 690 Pharmaceutics Research Seminar, MEDC 690 1

Departmental Research Seminar or PHAR 690 Pharmacy Research (minimum)

Seminar (variable credit)

PSCI 607-608 Introduction to Pharmaceutical Sciences From Bench 2

In addition to the pharmaceutical sciences core courses, students must fulfill course and other degree requirements in their respective concentrations as outlined below.

to Shelf

Concentration

BIOS/STAT 544 Statistical Methods II or equivalent	3
PHAR 626 Advanced Pharmacotherapy Research Methods	3
PHAR 637 Introduction to Research Methods in Pharmaceutical	3
Sciences	

Electives

A minimum of six elective credit hours is required for the M.P.S. The 6 elective courses taken will generally be selected from a list identified by the major adviser and will be agreed upon by the major adviser and student.

Research

Students are required to complete a project. The six credit-hour minimum directed research requirement may be waived for circumstances such as a prior related degree. If waived, students must still complete minimum number of hours required for the degree.

PHAR 697 Directed Research in Pharmacy (variable credit) 6 (minimum)

Total graduate credit hours required (minimum)

30

Degree candidacy requirements

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Degree candidacy requirements



Graduation requirements

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Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in medicinal chemistry

Graduate program director

Susanna Wu-Pong, Ph.D.

Director, pharmaceutical sciences graduate programs

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Additional contact

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Program website: pharmacy.vcu.edu

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Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmaceutics

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Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacotherapy

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Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacotherapy

Pharmacology and Toxicology, Master of Science (M.S.)

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)

Pharmacy, Doctor of (Pharm.D.)

Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) [combined]

Pharmacy, Doctor of (Pharm.D.)/Business Administration, Master of (M.B.A.) [combined]

Pharmacy, Doctor of (Pharm.D.)/Public Health, Master of (M.P.H.) [combined] Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Master of Science (M.S.) [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Sciences, Master of Sci	ence (M.S.) with a con	centration in medicinal
Semester(s) of entry:	Deadline dates:	Test requirements: GRE
Fall	Jan 1	TOEFL (international applicants)
	Semester(s) of entry:	entry:

In addition to the general admission requirements of the VCU Graduate School, applicants must have received a baccalaureate from an accredited institution in a related area, demonstrating the ability to perform at the graduate level. Prerequisite and foundation course work may be required, depending upon the applicant's discipline.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The School of Pharmacy endeavors to provide the highest quality teaching and research in the pharmaceutical sciences graduate program at the Master of Science level.

Student learning outcomes

1. Knowledge of research in pharmaceutical sciences

The candidate should demonstrate a general knowledge of the elements of the pharmaceutical sciences and a detailed knowledge of his/her area of research, including an appropriate familiarity with the research literature, policies and procedures, and methodology pertaining to their field.

2. Design experiments in pharmaceutical sciences

The candidate should demonstrate an appropriate level of skill in the design of experimental protocols and the technical conduct of experimentation related to his/her research.

3. Demonstrate appropriate communication skills

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Degree requirements

In addition to general VCU Graduate School graduation requirements, M.S. students in pharmaceutical sciences must complete a minimum of 30 didactic credit hours of required (both school and department core) and elective hours. All

M.S. students must pass the thesis review and defense in each department in order to advance to graduate.

Curriculum requirements

Courses	Credit hours
School of Pharmacy core curriculum	
BIOS/STAT 543 Statistical Methods I or MEDC 541 Survey of Molecular Modeling Methods (1 credit repeated) or MEDC 601 Advanced Medicinal Chemistry I (1 credit repeated)	3
IBMS 600 Laboratory Safety or equivalent	1
OVPR 601 Scientific Integrity or equivalent	1
PCEU/MEDC/PHAR 614 Research Techniques or MEDC 526 Research Techniques in Medicinal Chemistry (variable credit)	1 (minimum)
PCEU 690 Pharmaceutics Research Seminar, MEDC 690	1
Departmental Research Seminar or PHAR 690 Pharmacy Research Seminar (variable credit)	(minimum)
PSCI 607-608 Introduction to Pharmaceutical Sciences From Bench to Shelf	2

In addition to the pharmaceutical sciences core courses, students must fulfill course and other degree requirements in their respective concentrations as outlined below.

Concentration

CHEM 504 Advanced Organic Chemistry I	3
MEDC 526 Research Techniques in Medicinal Chemistry	1-4
MEDC 541 Survey of Molecular Modeling Methods or CHEM 510	1-3
Atomic and Molecular Structure	
MEDC 591 Special Topics in Medicinal Chemistry	1-3.5
MEDC 601 Advanced Medicinal Chemistry I	1

Electives

A minimum of six elective credit hours is recommended for the M.S. 6 The elective courses taken will generally be selected from a list identified by the major adviser and will be agreed upon by the major adviser and student. These electives may include courses outside the department.

Research

Students are required to complete a thesis. The six credit-hour minimum directed research requirement may be waived for circumstances such as a prior related degree. If waived, students must still complete minimum number of hours required for the degree.

MEDC 697 Directed Research in Medicinal Chemistry (variable	6
credit)	(minimum)

Total graduate credit hours required (minimum) 30

Degree candidacy requirements

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Other information

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Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmaceutics

Graduate program director

Susanna Wu-Pong, Ph.D.

Director, pharmaceutical sciences graduate programs

swupong@vcu.edu

(804) 828-4328

Additional contact

Shakim Jackson

Education coordinator

sjackson29@vcu.edu

(804) 628-4408

Program website: pharmacy.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacoeconomics and health outcomes

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Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacotherapy

Pharmacology and Toxicology, Master of Science (M.S.)

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)

Pharmacy, Doctor of (Pharm.D.)

Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

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Admission requirements

Pharmaceutica pharmaceutics	al Sciences, Master of Sci	ence (M.S.) with a conce	entration in
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE
	Fall	May 1 (priority consideration for financial aid Feb 1)	TOEFL (international applicants)
	Spring	Oct 1	
Special require Pharm.D. or ba	ements: chelor's degree in a related	l area	

In addition to the general admission requirements of the VCU Graduate School, applicants must have received a baccalaureate from an accredited institution in a related area, demonstrating the ability to perform at the graduate level. Prerequisite and foundation course work may be required, depending upon the applicant's discipline.

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 $\label{eq:General academic regulations for all graduate students in all graduate programs at VCU$



Program goal

The School of Pharmacy endeavors to provide the highest quality teaching and research in the pharmaceutical sciences graduate program at the Master of Science level.

Student learning outcomes

1. Knowledge of research in pharmaceutical sciences

The candidate should demonstrate a general knowledge of the elements of the pharmaceutical sciences and a detailed knowledge of his/her area of research, including an appropriate familiarity with the research literature, policies and procedures, and methodology pertaining to their field.

2. Design experiments in pharmaceutical sciences

The candidate should demonstrate an appropriate level of skill in the design of experimental protocols and the technical conduct of experimentation related to his/her research.

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The candidate should demonstrate an appropriate level of skill in the identification of meaningful problems in the pharmaceutical sciences and the design of and implementation of appropriate problem-solving methods.

Degree requirements

In addition to general VCU Graduate School graduation requirements, M.S. students in pharmaceutical sciences must complete a minimum of 30 didactic credit hours of required (both school and department core) and elective hours. All M.S. students must pass the thesis review and defense in each department in order to advance to graduate.

Curriculum requirements

Prerequisites

All students should have prerequisite knowledge in chemistry, mathematics and biology. The following departmental courses or their equivalents are required for admission into the Department of Pharmaceutics option. If a prospective student has not met any of the prerequisites, the course(s) may be included in the student's core course requirements upon recommendation by the prospective graduate adviser and approval by the respective course coordinator (see below).

CHEZ 409 Instrumental Analysis Laboratory* PCEU 507 Pharmaceutics and Biopharmaceutics I (except pharmaceutical calculus) PCEU 508 Pharmacokinetics		
PCEU 507 Pharmaceutics and Biopharmaceutics I (except pharmaceutical calculus) PCEU 508 Pharmacokinetics	CHEM and 409 Instrumental Analysis*	3
calculus) PCEU 508 Pharmacokinetics	CHEZ 409 Instrumental Analysis Laboratory*	2
	1 \ 1 1	3
PCEU 509 Pharmaceutics and Biopharmaceutics II	PCEU 508 Pharmacokinetics	3
	PCEU 509 Pharmaceutics and Biopharmaceutics II	3

^{*} Undergraduate prerequisite course work may not count toward the minimum 30 graduate credit hours required for the degree and may not be included in the calculation of graduate statistics, i.e., GPA, 20 percent C or below rule, etc.

Curriculum requirements

Courses	Credit hours
School of Pharmacy core curriculum	
BIOS/STAT 543 Statistical Methods I or MEDC 541 Survey of Molecular Modeling Methods (1 credit repeated) or MEDC 601 Advanced Medicinal Chemistry I (1 credit repeated)	3
IBMS 600 Laboratory Safety or equivalent	1
OVPR 601 Scientific Integrity or equivalent	1
PCEU/MEDC/PHAR 614 Research Techniques or MEDC 526 Research Techniques in Medicinal Chemistry (variable credit)	1 (minimum)
PCEU 690 Pharmaceutics Research Seminar, MEDC 690	1
Departmental Research Seminar or PHAR 690 Pharmacy Research Seminar (variable credit)	(minimum)
PSCI 607-608 Introduction to Pharmaceutical Sciences From Bench to Shelf	2
In addition to the phomesopolical acioness care courses attidants must	

In addition to the pharmaceutical sciences core courses, students must fulfill course and other degree requirements in their respective concentrations as outlined below.

Concentration

BIOS/STAT 543 Statistical Methods I	3
PCEU 612 Advanced Physical Pharmacy and Biopharmaceutics	3
PCEU 625 Pharmaceutical Analysis	2
PCEU 690 Pharmaceutics Research Seminar	1

Electives

A minimum of six elective credit hours is recommended for the M.S. 6 These courses will be selected based upon individual research program needs and will be chosen through mutual consultation with the student and major adviser.

Research

Students are required to complete a thesis. The six credit-hour minimum may be waived for circumstances such as a prior related degree. If waived, students must still complete minimum number of hours required for the degree.

PCEU 697 Directed Research in Pharmaceutics (variable credit)

(minimum)

Total graduate credit hours required (minimum)

30

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Degree candidacy requirements



Graduation requirements

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Graduation requirements



Other information

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Website for prospective students:

pharmacy.vcu.edu/programs/graduate/prospective-students

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacoeconomics and health outcomes

Graduate program director

Susanna Wu-Pong, Ph.D.
Director, pharmaceutical sciences graduate programs
swupong@vcu.edu
(804) 828-4328

Additional contact

Shakim Jackson

Education coordinator

sjackson29@vcu.edu (804) 628-4408

Program website: pharmacy.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in medicinal chemistry

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Pharmacology and Toxicology, Master of Science (M.S.)

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Pharmacy, Doctor of (Pharm.D.)

Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

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Admission requirements

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacoeconomics and health outcomes			
Degree: M.S.	Semester(s) of entry: Fall	Deadline dates: May 1 (priority consideration for financial aid Feb 1)	Test requirements: GRE TOEFL (international applicants)
	Spring	Oct 1	
Special require Pharm.D. or ba	ements: chelor's degree in a related	l area	

In addition to the general admission requirements of the VCU Graduate School, applicants must have received a baccalaureate from an accredited institution in a related area, demonstrating the ability to perform at the graduate level. Prerequisite and foundation course work may be required, depending upon the applicant's discipline.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The School of Pharmacy endeavors to provide the highest quality teaching and research in the pharmaceutical sciences graduate program at the Master of Science level.

Student learning outcomes

1. Knowledge of research in pharmaceutical sciences

The candidate should demonstrate a general knowledge of the elements of the pharmaceutical sciences and a detailed knowledge of his/her area of research, including an appropriate familiarity with the research literature, policies and procedures, and methodology pertaining to their field.

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Degree requirements

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Courses	Credit hours
School of Pharmacy core curriculum	
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OVPR 601 Scientific Integrity or equivalent	1
PCEU/MEDC/PHAR 614 Research Techniques or MEDC 526 Research Techniques in Medicinal Chemistry (variable credit)	1 (minimum)
PCEU 690 Pharmaceutics Research Seminar, MEDC 690	1
Departmental Research Seminar or PHAR 690 Pharmacy Research Seminar (variable credit)	(minimum)
PSCI 607-608 Introduction to Pharmaceutical Sciences From Bench to Shelf	2

In addition to the pharmaceutical sciences core courses, students must fulfill course and other degree requirements in their respective concentrations as outlined below.

Concentration

BIOS/STAT 544 Statistical Methods II or equivalent	3
PHAR 637 Introduction to Research Methods in Pharmaceutical	3
Sciences	
PHAR 638 Pharmaceutical Benefit Management	3
PHAR 671 Applied Pharmacoeconomics and Outcomes Research	3

Electives

A minimum of six elective credit hours is recommended for the M.S. 6 The elective courses taken will generally be selected from a list identified by the major adviser and will be agreed upon by the major adviser and student.

Research

Students are required to complete a thesis. The six credit-hour minimum directed research requirement may be waived for circumstances such as a prior related degree. If waived, students must still complete minimum number of hours required for the degree.

PHAR 697 Directed Research in Pharmacy (variable credit)	6
	(minimum)

Total graduate credit hours required (minimum)

Degree candidacy requirements

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Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacotherapy

30

Graduate program director

Susanna Wu-Pong, Ph.D.

Director, pharmaceutical sciences graduate programs

swupong@vcu.edu

(804) 828-4328

Additional contact

Shakim Jackson

Education coordinator

sjackson29@vcu.edu

Sjacks01129@vcu.

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Pharmaceutica pharmacother	al Sciences, Master of Sci apy	ence (M.S.) with a conce	entration in
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE
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Student learning outcomes

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Curriculum requirements

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IBMS 600 Laboratory Safety or equivalent	1
OVPR 601 Scientific Integrity or equivalent	1

PCEU/MEDC/PHAR 614 Research Techniques or MEDC526
Research Techniques (variable credit) (minimum)
PCEU 690 Pharmaceutics Research Seminar, MEDC 690 1
Departmental Research Seminar or PHAR 690 Pharmacy Research
Seminar (variable credit)
PSCI 607-608 Introduction to Pharmaceutical Sciences From Bench to Shelf

In addition to the pharmaceutical sciences core courses, students must fulfill course and other degree requirements in their respective concentrations as outlined below.

Concentration

BIOS/STAT 544 Statistical Methods II or equivalent	3
PHAR 626 Advanced Pharmacotherapy Research Methods	3
PHAR 637 Introduction to Research Methods in Pharmaceutical	3
Sciences	

Electives

A minimum of six elective credit hours is recommended for the M.S. 6 The elective courses taken will generally be selected from a list identified by the major adviser and will be agreed upon by the major adviser and student.

Research

Students are required to complete a thesis. The six credit-hour minimum directed research requirement may be waived for circumstances such as prior related degree. If waived, students must still complete minimum number of hours required for the degree.

PHAR 697 Directed Research in Pharmacy (variable credit)

(minimum)

Total graduate credit hours required (minimum)

30

Degree candidacy requirements

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Website for prospective students:

pharmacy.vcu.edu/programs/graduate/prospective-students

Pharmacy, Doctor of (Pharm.D.)

The school offers the Doctor of Pharmacy degree as a professional degree program. Students must complete a minimum of three years of prerequisite course work prior to admission. The Doctor of Pharmacy degree is awarded after four years of study.

Accreditation and Complainant policy

The Doctor of Pharmacy degree program at the Virginia Commonwealth University School of Pharmacy is fully accredited by the Accreditation Council for Pharmacy Education (ACPE), 20 N. Clark St., Suite 2500, Chicago, IL 60602-5109. Accreditation standards are available in the school's Office of Admissions and Student Services and via the ACPE website at www.acpeaccredit.org. Additionally, the school is a member of the American Association of Colleges of Pharmacy.

Complainant policy

ACPE has an obligation to assure itself that any institution that seeks accreditation status for its professional degree program conducts its affairs with honesty and frankness. Students who have complaints about the school's ability to meet accreditation standards or adhere to ACPE policies and procedures shall be submitted in writing to the Associate Dean for Admissions and Student Services, VCU School of Pharmacy, 410 N. 12th St., Room 500, Richmond, VA 23298-0581. The complainant is welcome to make an appointment to meet with school administrators to discuss his or her complaints and options for resolution. If they are not satisfied with the response by the school's representative/s, then complainants may contact ACPE at 135 S. LaSalle St., Suite 4100, Chicago, IL 60603 or www.acpe-accredit.org/complaints with a complaint. A record of written complaints about the school's adherence to ACPE accreditation standards or policies and procedures will be maintained for ACPE to review at the time of an accreditation site visit.

Licensing and reciprocity

The Virginia Board of Pharmacy holds qualifying examinations for licensure on an ongoing basis throughout the year. Applicants for the examination must present evidence that their first professional degree was granted by a school of pharmacy recognized by the board. This school is among those recognized. Applicants must also present evidence of completion of 1,500 hours of practical experience. Completion of the school's Pharm.D. program satisfies this requirement. APPE rotations completed outside of the United States may not be counted toward the 1,500–hour requirement.

Those students who intend to be licensed in Virginia should contact the Virginia Board of Pharmacy, 9960 Mayland Dr., Suite 300, Richmond, VA 23233-1463.

Admission requirements

Applicants for admission to the School of Pharmacy must attend an accredited college for at least three academic years (nine quarters or six semesters) and complete the specified course requirements prior to admission.

Students planning to seek a degree in pharmacy upon high school graduation should plan their high school program to meet the requirements for admission in the college where they will take the prerequisite work for admission into the VCU School of Pharmacy.

The minimal admission requirements are listed. (Meeting these requirements does not, however, guarantee acceptance into the VCU School of Pharmacy.)

A. Three letters of reference are required. These include a reference from a science professor, a health professional (pharmacist preferred) and an employer.

- B. An official transcript from the student's primary college and all colleges attended must be supplied. Applications are considered by the Admissions Committee only after transcripts on file show completion of no less than four semesters or six quarters of college work. When offered, an acceptance is contingent upon satisfactory completion of specific work that may be in progress.
- C. Applicants must present the required credits in the following subject areas for a total of at least 90 semester hours.

	Semester hours
General biology (lecture and laboratory)	8
College chemistry (lecture and laboratory)	8
Organic chemistry (lecture and laboratory)	8
Physics (lecture and laboratory)	4
Human anatomy*	3
Human physiology	3
Microbiology*	3
Biochemistry	3
English	6
Calculus	3
Statistics	3
Public speaking	3
Biomedical science foundation and elective courses	35
Minimum	90

^{*} One hour of lab in these subjects also preferred

D. Due to the importance of a strong biomedical science foundation for success in the Doctor of Pharmacy program, some or all of the courses listed below are recommended.

Genetics or molecular biology	3
Immunology	3
Cell biology	3

- E. The electives will comprise a balanced program in social sciences, arts and humanities. Electives in computer science, economics, psychology and sociology are highly recommended. Others include political science, anthropology, history, foreign languages, philosophy and religious studies.
- F. Credits earned through Advanced Placement Tests of the College Board or International Baccalaureate are not acceptable in meeting the total semesterhours requirement. Such AP credits may excuse a student from taking a specific non-science course such as English, but the credits must be made up through additional electives. AP credits in science (e.g., biology, chemistry) or mathematics (e.g., calculus) must be made up with courses in kind. Generally, this requirement is achieved by taking advanced-level courses (e.g., physical chemistry as a substitute for AP/IB credit in general chemistry).
- G. Dual-credit courses taken during high school may be considered acceptable for transfer credit pending review of college transcripts.
- H. Applicants must have earned a creditable average (C or better) overall, and in the courses specified, to meet minimum academic requirements for admission.
- Applicants for admission must apply online through PharmCAS, a centralized application service for pharmacy schools. The PharmCAS Web site at www.pharmcas.org provides further details.
- J. An on-campus interview is mandatory for admission consideration.
- K. Applicants are required to take the Pharmacy College Admission Test (PCAT) before admission.
- L. Applicants whose first language is not English and who have not lived in the U.S. for at least 10 years should submit scores from the Test of English as a Foreign Language, the Test of Spoken English or other proof that their command of English is sufficient to allow successful completion of all requirements of the program.

- M. Students are admitted only at the start of the academic year. An applicant must complete two full years of the academic prerequisites before an application can be reviewed. The Admissions Committee begins reviewing applications during September of the year preceding admission. It is to the applicant's advantage to apply during the fall of the year before expected enrollment in the School of Pharmacy. Applicants are accepted pending satisfactory completion of all prerequisite courses. Notification usually occurs in early spring.
- N. Prior to enrolling, successful applicants must meet the immunization requirements set forth in the "Professional study" section of this bulletin. Prior to entering the fourth professional year, students must satisfy all university and APPE site immunization requirements.
- O. Applicants exercising the early decision option for admission to the VCU School of Pharmacy must submit their fee and official transcript from all postsecondary institutions ever attended to PharmCAS by the specified deadline. Applicants whose materials are not received or whose applications are incomplete by these deadlines will be ineligible for the early decision option, and they will be deferred to regular admission status. Applicants exercising the early decision option are expected to make a commitment to attend the VCU School of Pharmacy if accepted. If an acceptance offer is not made under the early decision option, the applicant is then moved to regular admission status and continues to be evaluated for admission during the remainder of the admission cycle. The applicant is then free to apply to other schools of pharmacy under the regular admission procedure.
- P. Applicants pursuing "regular admission" to the VCU School of Pharmacy must submit the electronic application, letters of reference and transcripts to PharmCAS by the specified deadline. Applicants who do not meet these PharmCAS deadlines will be ineligible for admission to the VCU Doctor of Pharmacy degree program.
- Q. Applicants to the program must be U.S. citizens or permanent residents of the U.S.

The following criteria are considered in judging applicants:

- College attended
- · Academic workload carried
- College overall GPA
- Chemistry, biology and math proficiency
- · Outside activities and achievements in high school and college
- PCAT scores
- · Written and oral communication skills
- Extent of exposure to pharmacy practice
- Extent of exposure to other health disciplines
- Personal interview

Time demands for this full-time program are rigorous. In general, the first three years require a Monday–Friday (8 a.m.–6 p.m.) commitment for lectures, conferences, laboratories and off-campus visits to area pharmacy practice sites. The fourth year is devoted to experiential learning at sites located throughout Virginia. Students enrolling in the four-year professional degree program must agree to the possibility of being assigned to sites beyond the Richmond metropolitan area (e.g., eastern, northern or western Virginia). Candidates must assess personal obligations prior to seeking application.

VCU does not discriminate against qualified applicants for admission who have disabilities, and seeks to provide reasonable accommodation to applicants and admitted students who identify themselves as having disabilities. Academic requirements essential to the program or to directly related licensing requirements will not be substituted. Upon acceptance into the program, students in need of accommodation may contact the MCV Campus coordinator for students with disabilities at (804) 828-9782 to discuss their needs.

Further information may be obtained by writing to the Chair, Admissions Committee, School of Pharmacy, Virginia Commonwealth University, P.O. Box 980581, Richmond, VA 23298-0581. Applicants also may call a toll-free telephone number, (800) 330-0519 for assistance.

Student learning outcomes

Pharm.D. students will demonstrate competencies in appropriate medication use and quality improvement; communication abilities; critical-thinking; decisionmaking; evidence-based practice; inter-professional collaborative practice; medication distribution and control systems management; patient-centered care; patient pharmacotherapy assessment; pharmacotherapy planning and decisionmaking; pharmacotherapy practice management; professionalism; responsible use of values; ethical principles; self-direction; lifelong learning; social awareness and responsibility; and appropriate NAPLEX scores.

Curriculum	
P1 year	
	Credits
Fall	
MEDC 527 Basic Pharmaceutical Principles for the Practicing	3.0
Pharmacist	
MEDC 533 Pharmacognosy	2.0
PCEU 507 Pharmaceutics and Biopharmaceutics I	3.0
PHAR 509 Evidence-based Pharmacy I: Introduction to Pharmacy	2.0
Information Skills	
PHAR 512 Health Promotion and Disease Prevention	2.0
PHAR 523 Foundations I	1.5
PHAR 525 Communications in Pharmacy Practice	2.0
PHAR 545 The U.S. Health Care System	2.0
PHAR 547 Managing Professional Patient-centered Practice	1.5
PHAR 771 Student Pharmacist Professionalism	continues
Total	19.0
Spring	
MEDC 553 Clinical Therapeutics Module: Introduction to Medicina	al 1.0
Chemistry*	
PCEU 508 Pharmacokinetics*	3.0

1.0
3.0
3.0
2.0
1.5
2.0
2.0
4.0
continues
1.0
19.5

P2 year

Fall	
MEDC 543 Clinical Chemistry for the Pharmacist	2.0
PHAR 534 Foundations III	1.0
PHAR 543 Scholarship I	continues
PHAR 541 Patient Assessment in Pharmacy Practice	2.0
PHAR 544 Clinical Therapeutics Module: Cardiovascular*	4.5
PHAR 555 Clinical Therapeutics Module: Endocrinology*	2.5
PHAR 603 Clinical Therapeutics Module: Respiratory/	3.0
Immunology*	
PHAR 565 Evidence-based Pharmacy II: Research Methods and	2.5
Statistics*	
PHAR 622 Epidemiology for Pharmacy Practice*	2.0
PHAR 771 Student Pharmacist Professionalism	continues
Total	19.5

MEDC 542 Biotechnology-derived Therapeutic Agents

PCEU 615 Applied Pharmacokinetics

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PHAR 532 Introductory Pharmacy Practice Experience: Hos Practice	spital 3.0
PHAR 535 Foundations IV	1.0
PHAR 543 Scholarship I	1.0
PHAR 566 Evidence-based Pharmacy III: Drug Literature Evaluation	2.0
PHAR 604 Clinical Therapeutics Module: Infectious Disease	es* 4.5
PHAR 606 Clinical Therapeutics Module: Nephrology/Urole	ogy* 2.0
PHAR 661 Institutional Pharmacy Management	2.0
PHAR 623 Patient Medication Safety*	2.0
PHAR 771 Student Pharmacist Professionalism	continues
Total	21.0
P3 year	
13 year	
Fall	
PHAR 550 Scholarship III	continues
PHAR 540 Self-Care and Alternative and Complementary Treatments	2.5
PHAR 549 Pharmacogenetics and Pharmacogenomics*	1.0
PHAR 602 Clinical Therapeutics Module: Psychiatry*	3.0
PHAR 605 Clinical Therapeutics Module: Hematology/Onco	ology* 2.5
PHAR 607 Clinical Therapeutics Module: Dermatology, EE	NT* 1.5
PHAR 619 Clinical Therapeutics Module: Women's Health/land Joint*	Bone 2.5
PHAR 640 Foundations V	1.0
PHAR 660 Community Pharmacy Practice Management II	2.0
PHAR 771 Student Pharmacist Professionalism	continues
Elective	2.0-3.0
Total	18.0-19.0
Spring	
PHAR 533 Introductory Pharmacy Practice Experience: Ser- learning	vice- 0.5
-	2.0
PHAR 550 Scholarship II PHAR 621 Pharmacoeconomics	2.0
PHAR 556 Clinical Therapeutics Module: Neurology	4.0
PHAR 618 Clinical Therapeutics Module: Gastrointestinal/ Nutrition*	2.5
PHAR 620 Clinical Therapeutics Module: Critical Care/Tox	• • • • • • • • • • • • • • • • • • • •
PHAR 721 Clinical Therapeutics Module: Integrated Medica Management*	ation 1.0
PHAR 645 Foundations VI	1.0
PHAR 724 Pharmacy Law	2.5
PHAR 771 Student Pharmacist Professionalism	continues

Elective 2.0-3.0 19.0-20.0 Total

r4 year (over 45 weeks)	
PHAR 760 Acute Care Pharmacy Practice I	5.0
PHAR 761 Advanced Hospital Pharmacy Practice	5.0
PHAR 762 Geriatrics Pharmacy Practice	5.0
PHAR 763 Ambulatory Care Pharmacy Practice	5.0
PHAR 765 Elective I	5.0
PHAR 766 Elective II	5.0
PHAR 768 Advanced Community Pharmacy Practice	5.0
PHAR 771 Student Pharmacist Professionalism	1.0
PHAR 773 Acute Care Pharmacy Practice II	5.0
Total	41.0

^{*} Course will be taught as a module.

Academic regulations

1.0

2.5

Matriculation in the School of Pharmacy implies a willingness on the part of students to comply with university rules and regulations and to conduct themselves in a manner befitting members of the profession the students seek to enter. The program of study and regulations regarding courses of study, student conduct, etc. are subject to modification without notice. All rules and regulations set forth in this bulletin, as well as other statements issued by administrative officers of the university, apply until further notice.

Probation

Students may be placed on probation by either the Admissions Committee or the Academic Performance Committee. Probation is a status indicating that the student's scholarship is deficient and is expected to be improved to a level considered to be satisfactory by the faculty. Students who fail to meet probationary stipulations may expect to have their normal progress through school interrupted. They may be required to repeat a year or to withdraw. Students on probation during the first three years of the professional program are neither allowed to hold an elected office in a student association nor be eligible for nomination as an officer in a student association. Students are not permitted to represent the school in extracurricular activities (e.g., representation at a local, regional or national association meeting, or other professional event). Students are expected to discontinue any outside employment during the academic year. Students are not eligible to pledge a professional fraternity. Students are encouraged to avail themselves of special tutoring and counseling services for improving their academic performance. Additionally, students during the fourth year of the professional program must complete all required and elective advanced pharmacy practice experiential rotations at sites within the VCU School of Pharmacy system and the preceptor must have a current faculty appointment. Students are expected to discontinue any outside employment while completing advanced pharmacy practice experiential rotations. Expiration of probationary status occurs following the equivalent of an academic year (i.e., two consecutive semesters of successful academic performance during the first three professional years and upon the successful completion of all advanced pharmacy practice experiential rotations in the fourth year.

Outside work

In general, the faculty believes that students should give first priority to their school work. Students able to maintain academic standing are not restricted with respect to outside employment. Students in academic difficulty will be advised to cease or drastically curtail any outside employment.

Honor code

All students are governed by the honor code and regulations of the VCU Honor System. The VCU Honor System is based on the foundation that Virginia Commonwealth University recognizes that honesty, truth and integrity are values central to its mission as an institution of higher education. In a community devoted to learning, a foundation of honor must exist if that community is to thrive with respect and harmony. Therefore, members of the academic community are required to conduct themselves in accordance with the highest standards of academic honesty and integrity. Additional information is available at www.students.vcu.edu/judicialaffairs/honorfaqs.

Advising program

Students in the School of Pharmacy seek assistance with academic and personal problems through the school's Office of Admissions and Student Services. Students are provided with information about accessing resources within the school, university and professional community. Also, faculty members serve as mentors to students throughout the four year curriculum.

There is a faculty adviser to the Interfraternity Council as well as an adviser for each of the professional pharmacy fraternities. Each of the student chapters of professional pharmacy organizations within the school also has a designated faculty adviser.

Attendance regulations

The following regulations apply specifically to students enrolled in the Doctor of Pharmacy program in all of their required and elective courses offered by departments in the School of Pharmacy.

 The faculty considers class attendance at lectures to be an important component in the successful acquisition of knowledge and skills required of the Doctor of Pharmacy candidate. Students are strongly encouraged to attend all classes and conferences. An individual faculty member may require

- attendance in his or her course and establish penalties for those who are absent without an excuse from the dean's office.
- 2. Attendance at laboratory and prelaboratory classes is mandatory. Students must complete all laboratory assignments before a passing grade can be assigned. An excused absence from the dean's office is required for missing a laboratory or prelaboratory class with the ability to make up the work with credit. Students without an approved absence are still required to make up the work but will not receive credit toward their course grade.
- 3. Students must take tests (e.g., quizzes, laboratory practicals, examinations) and complete all other assignments at the time designated by the course coordinator. Students must recognize that faculty may give unannounced tests at any time during a course, consistent with documentation in a course syllabus. Students who miss any test in any course without an excused absence from the dean's office will receive a grade of zero for the specific test.
- 4. Attendance during each assigned clerkship period is mandatory. If a student is unable to attend to required clerkship responsibilities because of illness or other exceptional circumstances, the preceptor must be notified immediately. It is the responsibility of the student to also notify the clerkship director concerning a plan to make up the absence, with the approval of the preceptor. Documentation of the absence and approval to make up the absent time will be maintained in the student's record.
- 5. Absences may be excused under certain conditions. Requests for excuses for unavoidable absences must be submitted to the dean's office, on an Absence Record form, within 24 hours of returning to the School of Pharmacy. The student must complete the Absence Record form with an explanation for the absence. Further explanation, if necessary, may be provided to the associate dean for admissions and student services. It is a violation of the honor code to make false or misleading statements on the Absence Record form. In the event of an unexcused absence, the student is responsible for all work missed.
- A guiding principle in determining whether or not an absence will be excused is that the absence is caused by circumstances beyond the student's control. The following are considered valid excuses for being absent from a class or clerkship.
 - a. Illness, a medical emergency, a dental emergency. The school normally accepts the student's judgment that the condition was serious enough to justify the absence from class; however, the school reserves the right to require a medical opinion, particularly if the period of absence is prolonged or is repetitive. The school will require a written medical opinion when a student is absent from taking a scheduled test or final examination. If the absence is a result of a medical emergency, the student will be required to sign a written release for the school to obtain documentation from their physician describing the exact nature of the illness or emergency. This record will be submitted to the associate dean for admissions and student services as a confidential document.
 - b. Death of a relative or friend. Students will be excused from class to attend funerals. Absence beyond the day of the funeral will be excused for periods of mourning required by a student's religious or cultural tradition, or when a student is too grief-stricken to return immediately to class.
 - c. Mandatory court appearance.
 - d. Mandatory religious observances. Students who anticipate absences from class because of religious obligations should submit a list of their anticipated absences at the beginning of each semester to the dean's office. The student must also submit an absence form following each absence
 - e. Failure of private, public or university transportation. Students are expected to take reasonable precautions to assure that the transportation method used is fully functional (e.g., maintaining personal automobile, avoiding the last possible return airline flight to Richmond). Proof of transportation failure will be required.
 - f. Attendance at professional meetings. Students in good academic standing may receive an excused absence from class to attend a meeting of a professional pharmacy organization. The student must complete an Absence Record form in advance of attending a professional meeting. A policy statement containing eligibility criteria is distributed to all students.

Tardiness is a form of absence that also may be excused using the criteria mentioned above. Students arriving late for a test may be given the test without an excused absence but will not be allowed extra time beyond the scheduled termination of the test. Once a student has completed the test and left the room, late-arriving students will not be permitted to take the test unless the absence is excused.

Absences that are not reported within 24 hours after the student returns to school will be considered unexcused. It is not the responsibility of a faculty member to determine whether an absence is excused. This determination will be made by the dean's office.

Students are expected to make every effort to keep abreast of their assignments during an absence. They should also be prepared to take tests upon their return to the school or at the discretion of the faculty member after considering the student's academic schedule. If, in the opinion of the dean's office, the nature of a student's absence made it impossible for that student to prepare for a test, the student will be granted an extension for taking the test.

A faculty member should not give a make-up test before confirming that a student's absence has been excused. The faculty member usually provides an equivalent make-up test within a reasonable period of time. The type and format of the make-up exam will be determined by the faculty member. Within the framework of the honor code, it may be possible to administer the same examination no more than 48 to 72 hours after the originally scheduled examination. Any make-up examination should be scheduled as soon as possible to avoid impeding the student's academic progress.

Promotion

Attending pharmacy school is not a right acquired simply by conforming with the entrance requirements and paying tuition and fees. For this reason the dean and the Academic Performance Committee require that marginal or failing performance be improved or that the student withdraw from school. D grades are indicative of marginal performance. Careful consideration is given during the promotions process not only to the student's grades but also to his or her probity, industry and scholastic ability.

These guidelines delineate the course of action to be taken by the committee. Decisions regarding individual students will be made in accordance with these guidelines. Consideration will be given to pertinent information and extenuating circumstances for individual cases. The following statements present the prominent features of the promotions process.

- Students are evaluated for progress at the end of each semester. The
 Academic Performance Committee assesses student progress for each of
 these periods. At the end of the fourth year the entire faculty will decide
 whether or not students have satisfied all requirements for graduation.
 Promotion decisions are based on achievement during the year under review
 and on the student's overall progress.
- 2. Students who have passed the work of an academic year with grades of C or better in all courses will ordinarily be advanced to the next higher class.
- 3. The Academic Performance Committee thoroughly reviews the academic record of each student who fails to pass a course, receives a D grade, does not maintain a GPA of 2.0 or better for the year or semester in question, or is on probation. Following this review, the committee may recommend promotion on a probationary basis, require a repeat of all or a part of previous work, or terminate the student's enrollment.
- 4. Students who fail two or more courses during the program will be dismissed.
- A student who earns D grades for six credits or more of class work in any year and/or a GPA of less than 2.0 in any year will be subject to academic probation, dismissal or may be asked to repeat the year.

Students will be subject to academic probation, dismissal or may be asked to repeat the year if they earn more than one D or F grade in any one of the following sequences of related courses: basic health sciences, medicinal chemistry, pharmacy and pharmaceutics, pharmacotherapeutics, and pharmacy administration.

Students who fail to meet conditions of probation will be required to withdraw or repeat a year's work. Students will not be allowed to repeat more than one year of the curriculum.

A student must have passed all courses from the first three years of the curriculum to qualify for entry into the final year of the program.

Withdrawal

Students finding it necessary to withdraw from the School of Pharmacy must comply with the provisions for withdrawal set by the university.

The dean of the School of Pharmacy will not approve a request for withdrawal until the student has submitted a letter of resignation.

Students withdrawing without approval and failing to check out laboratory lockers will be assessed a fee and any charges resulting from the need to replenish the contents of the lockers.

Readmission

Students seeking readmission to the School of Pharmacy will be evaluated on their total academic record. Applicants for readmission to the first professional year will not be given priority over new applicants but must compete with them on an equal basis. Readmission in advanced standing will be considered on a space-available basis.

Graduation

Students are recommended and approved for the Doctor of Pharmacy degree by the faculty of the School of Pharmacy. Candidates must meet the following requirements:

- 1. Be of good moral character
- Satisfactorily complete all the required work in a timely fashion, which will not normally exceed five years from the date of initial enrollment
- 3. Pay all fees
- 4. Complete the last year's work for the degree in residence in this school
- Be present at the commencement-related exercises unless excused in writing and in advance by the dean
- Satisfactorily complete the minimum number of required advanced practice experience rotations and demonstrate the attainment of minimum competencies

Financial aid

See the Professional studies section of this bulletin.

Courses of instruction

Enrollment in courses included in the Doctor of Pharmacy curricula summarized on the preceding pages requires the approval of the dean of the School of Pharmacy unless the student has been admitted to the Doctor of Pharmacy Program.

Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Graduate program director

E. Ayn Welleford, Ph.D. Chair, Department of Gerontology ewellefo@vcu.edu (804) 828-1565

Program website: sahp.vcu.edu/gerontology

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Occupational Therapy, Master of Science in (M.S.O.T.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Rehabilitation Counseling, Master of Science in (M.S.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Apply online at graduate.admissions.vcu.edu.

The Department of Gerontology, in cooperation with other programs at the university, provides students interested in working with elders or in gerontological settings with the opportunity to complete the Certificate in Aging Studies while also completing requirements for other degree programs. Students must apply separately to the participating programs and must meet all admission and degree

requirements for both programs. In some cases, and with the approval of the advisers of both programs, course work in one program may be approved to satisfy a course requirement in another program.

In cooperation with the School of Pharmacy, the department provides an opportunity for students in the Doctor of Pharmacy program to complete the certificate. The 21-credit-hour program is designed to integrate the required independent study project in gerontology into the Pharm.D. curriculum's clerkship assignment. The student is required to complete the following courses:

Curriculum requirements

Courses	Credit hours
GRTY 601 Biological and Physiological Aging	3
GRTY/PSYC 602 Psychology of Aging	3
GRTY 603 Social Gerontology	3
GRTY 692 Independent Study	1
GRTY elective(s)	3
PHAR 529 Clinical Therapeutics Module: Introduction to Special	2
Populations	_
PHAR 533 Introductory Pharmacy Practice Experience: Service- learning	.5
PHAR 565 Evidence-based Pharmacy II: Research Methods and Statistics	2.5
PHAR 566 Evidence-based Pharmacy III: Drug Literature Evaluation	2
PHAR 721 Clinical Therapeutics Module XVII: Special Populations	1
Total graduate credit hours required (minimum)	21

Contact the respective departments for additional curriculum information.

Pharmacy, Doctor of (Pharm.D.)/Business Administration, Master of (M.B.A.) [combined]

Graduate program director

Colleen A. Davis Senior director, master's program

androvichcm@vcu.edu (804) 828-6684

School of Pharmacy contact

Thomas P. Reinders. Ph.D. Associate dean of student affairs School of Pharmacy tpreinde@vcu.edu (804) 828-3000

Additional contact

Jana P. McQuaid Associate dean, master's programs jpmcquaid@vcu.edu (804) 828-4622

Program websites: pharmacy.vcu.edu and business.vcu.edu/graduate

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in

pharmaceutics

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacotherapy

Pharmacology and Toxicology, Master of Science (M.S.)

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)

Pharmacy, Doctor of (Pharm.D.)

Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) [combined]

Pharmacy, Doctor of (Pharm.D.)/Public Health, Master of (M.P.H.) [combined] Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Master of Science (M.S.) [combined]

Apply online at graduate.admissions.vcu.edu.

The Pharm.D./M.B.A. program seeks to prepare pharmacists for careers that encompass pharmacy and business theories and principles. The program is designed to take advantage of efficiencies and electives in both the Pharm.D. and M.B.A. programs. Students in the combined program can earn both degrees and save as much as one year or more over the time required for completing the programs separately.

Students may be admitted into the program during the first year of enrollment in the Pharm.D. program. Applicants must be enrolled in the Pharm.D. program, have demonstrated a good academic record and have successfully completed the Graduate Management Admission Test.

To obtain both degrees, students will take all pharmacy courses unless waived, the seven business foundation courses, the nine M.B.A. core courses and three elective courses. The elective M.B.A. courses may be taken from pharmacy administration courses at the 600 level and a combination of a business seminar course and an elective advanced pharmacy practice experience in pharmacy management. The business foundation courses can be taken during the first two years in the pharmacy program with summer session(s). The M.B.A. core courses can be taken during the third and fourth years in the pharmacy program. The business electives can be taken during the fourth and fifth years in the combined

Refer to the program search function of the online VCU Bulletins for a complete description of the curriculum of both programs.

Application to Pharm.D./M.B.A. program

Students interested in pursuing the Pharm.D./M.B.A. program must first obtain admission to the Pharm.D. program. Admitted Pharm.D. students who wish to add the M.B.A. degree must then apply to the M.B.A. program. Upon admission to the M.B.A. program, a Pharm.D. student will be considered a dual-degree-seeking student. Students generally will register for a mix of School of Business courses and School of Pharmacy courses in the fourth, fifth and sixth semesters of the pharmacy program.

A student categorized as a Pharm.D. student will be charged tuition and fees from the School of Pharmacy and will be eligible to receive financial aid awards as a Pharm.D. student. Students categorized as M.B.A. students will be charged tuition and fee rates as graduate students and be eligible to receive financial awards as graduate students.

Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) [combined]

Graduate program director

Susanna Wu-Pong, Ph.D. Director, pharmaceutical sciences graduate programs swupong@vcu.edu (804) 828-4328

Additional contact

Shakim Jackson Education coordinator sjackson29@vcu.edu (804) 628-4408

Program website: pharmacy.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmaceeconomics and health outcomes

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacotherapy

Pharmacology and Toxicology, Master of Science (M.S.)

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)

Pharmacy, Doctor of (Pharm.D.)

Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Pharmacy, Doctor of (Pharm.D.)/Business Administration, Master of (M.B.A.) [combined]

Pharmacy, Doctor of (Pharm.D.)/Public Health, Master of (M.P.H.) [combined] Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Master of Science (M.S.) [combined]

Apply online at graduate.admissions.vcu.edu.

The combined Pharm.D./Ph.D. program in the School of Pharmacy is a full-time program of professional education that offers an opportunity for advanced study in pharmaceutical sciences. The program recognizes the need for pharmacy practitioners with excellent research skills in clinical, academic, industrial and regulatory environments. The program is designed to take advantage of efficiencies in both the Pharm.D. and Ph.D. curricula and to allow Pharm.D./Ph.D. students to complete the program requirements of both programs after approximately six years, with both degrees being awarded at the same graduation ceremony.

Pharm.D./Ph.D. students can focus on the following research areas within the School of Pharmacy: pharmacotherapy and health outcomes, pharmacokinetics/pharmacodynamics, biopharmaceutical analysis, pharmaceutics/physical pharmacy, and medicinal chemistry. Students also may focus on pharmacology and toxicology within the School of Medicine. The choice of research area determines the required graduate course requirements.

During their P-2 through P-4 years, Pharm.D./Ph.D. students will complete the required Pharm.D. curriculum using graduate courses in lieu of required Pharm.D. courses and Pharm.D. electives. In addition, Pharm.D./Ph.D. students will engage in graduate research during the summer semesters following the P-2 and P-4 years. After the P-4 year and beyond (G-1 and G-2), Pharm.D./Ph.D. students will complete both their graduate course requirements and Ph.D. dissertation research project as full-time graduate students. Stipends and tuition reimbursement may be provided for Pharm.D./Ph.D. students serving as graduate teaching or research assistants.

Refer to the program search function of the online VCU Bulletins for a complete description of the curricular requirements for both programs.

Application to the combined program

Students may be admitted into the combined Pharm.D./Ph.D. program during the first or second year (P-1 and P-2) of enrollment in the Pharm.D. program. Applicants must demonstrate a good academic record, experience in research (e.g., during summer research fellowships after the P-1 year with one of the School of Pharmacy's graduate faculty) and successful completion of the Graduate Record Examination. Additionally, the application must be sponsored by a graduate faculty member as the prospective major graduate adviser. Appropriate progress of Pharm.D./Ph.D. students in the program will be assessed by the Pharm.D./Ph.D. subcommittee after each semester until successful completion of the comprehensive examinations.

Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Master of Science (M.S.) [combined]

Graduate program director

Susanna Wu-Pong, Ph.D.

Director, pharmaceutical sciences graduate programs

swupong@vcu.edu

(804) 828-4328

Additional contact

Shakim Jackson

Education coordinator

sjackson29@vcu.edu

(804) 628-4408

Program website: pharmacy.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacotherapy

Pharmacology and Toxicology, Master of Science (M.S.)

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)

Pharmacy, Doctor of (Pharm.D.)

Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) [combined]

Pharmacy, Doctor of (Pharm.D.)/Business Administration, Master of (M.B.A.) [combined]

Pharmacy, Doctor of (Pharm.D.)/Public Health, Master of (M.P.H.) [combined]

Apply online at graduate.admissions.vcu.edu.

The School of Pharmacy offers a Pharm.D./Master of Science (M.S.) in Pharmaceutical Sciences as a combined graduate/professional degree program that

teaches individuals to analyze and solve problems of interest to pharmacists. Students develop a broad range of skills by taking classes and working closely with faculty. Since the degree is offered concurrently with the professional pharmacy degree, certain efficiencies can be realized that permit students to graduate sooner than might be expected; although, this degree may require up to two years of study beyond the Pharm.D. program depending on the student's educational background and chosen area of study. Students will take the required Pharm.D. curriculum, with selected substitutions of required courses with graduate-level courses, in addition to the graduate curriculum.

In their first two years (P-1 and P-2), the Pharm.D./M.S. students will complete the required Pharm.D. curriculum while attending research seminars and possibly pursuing graduate courses as electives. After admission into the graduate program, students will take required graduate courses in lieu of Pharm.D. courses during the P-3 (G-1) year followed by graduate research during the summer. During the G-2 through G-4 years, students will complete the graduate course requirements and the required Pharm.D. clerkships and work on their graduate research projects. Stipends and tuition may be provided for students serving as graduate teaching or research assistants. During that period, the student will follow procedures prescribed for students in the pharmaceutical sciences.

Students can focus on the following research areas within the School of Pharmacy: pharmacotherapy, pharmacokinetics, biopharmaceutical analysis, pharmaceutics/ physical pharmacy, pharmacy administration and medicinal chemistry. Also, students may focus on the following research areas within the School of Medicine: pharmacology and toxicology. The choice of research area determines the required graduate course work.

The combined Pharm.D./M.S. program in the School of Pharmacy is a full-time program of professional education that offers an opportunity for advanced study in pharmaceutical sciences. The program recognizes the need for pharmacy practitioners with excellent research skills in clinical, academic, industrial and regulatory environments. The combined program is designed to take advantage of efficiencies in both the Pharm.D. and the M.S. programs and allows students to complete the program requirements of both programs after five or six years. Both degrees are awarded at the same graduation ceremony.

Refer to the program search function of the online VCU Bulletins for a complete description of the curriculum of both programs.

Application to the Pharm.D./M.S. program

Students may be admitted into the combined program before or during their first two years of enrollment in the Pharm.D. program. Applicants must demonstrate a good academic record, experience in research (e.g., during summer research fellowships with the school's graduate faculty) and successful completion of the Graduate Record Examination. Additionally, each applicant must be sponsored by a graduate faculty member.

Pharmacy, Doctor of (Pharm.D.)/Public Health, Master of (M.P.H.) [combined]

Graduate program directors

Lisa Anderson, M.P.H.

Director of educational programs, Division of Epidemiology, Department of Family Medicine and Population Health

lsanders@vcu.edu

(804) 628-2512

Amy Pakyz, Pharm.D., M.S., Ph.D.

Associate professor, Department of Pharmacotheraphy and Outcomes Science apakyz@vcu.edu (804) 828-6027

Program website: pharmacy.vcu.edu and familymedicine.vcu.edu/education/graduate/dual-degrees

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of (M.P.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Master of Science (M.S.) with a concentration in pharmacotherapy

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in medicinal chemistry

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmaceutics

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacoeconomics and health outcomes

Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) with a concentration in pharmacotherapy

Pharmacology and Toxicology, Master of Science (M.S.)

Pharmacology and Toxicology, Doctor of Philosophy (Ph.D.)

Pharmacy, Doctor of (Pharm.D.)

Pharmacy, Doctor of (Pharm.D.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Pharmacy, Doctor of (Pharm.D.)/Pharmaceutical Sciences, Doctor of Philosophy (Ph.D.) [combined]

Pharmacy, Doctor of (Pharm.D.)/Business Administration, Master of (M.B.A.) [combined]

Pharmacy, Doctor of (Pharm.D.)/ Master of Science (M.S.) [combined]

Apply online at graduate.admissions.vcu.edu.

The School of Pharmacy and the Division of Epidemiology in the Department of Family Medicine and Population Health in VCU's School of Medicine offer a dual-degree program through which students earn both Pharm.D. and M.P.H. degrees. This dual-degree program offers students the opportunity to achieve a Doctor of Pharmacy while also learning about research and the importance of population health. This five-year program requires students to spend the fourth year of the Pharm.D. program pursuing the M.P.H. degree, after which they transition back to pharmacy for advanced practice experiences.

Students are required to take 36 of the 45 credits required for the M.P.H. The M.P.H. field study (internship) requirement will be satisfied by Pharm.D. special advanced practice experiences in community health during the fifth year of the program.

Students complete two credits of practical skills work during the P3 year, followed by full immersion in the M.P.H. curriculum in the P4 year. The required M.P.H. capstone project will be completed in a community setting during the P5 year; it will involve a comprehensive project that serves the needs of a professional public health organization and typically involves the development of one or more deliverables. Examples include a disease surveillance project, a needs assessment or program evaluation, or development of a comprehensive suite of patient health education or medication safety materials.

Refer to the program search function of the online VCU Bulletins for a complete description of the curriculum for both programs.

Curriculum requirements

Courses	Credit hours
M.P.H. courses	36
Required	
BIOS 547 Applied Data Analysis in Public Health I	3
BIOS 548 Applied Data Analysis in Public Health II	3
EPID 547 Applied Data Analysis Lab I	1.5
EPID 548 Applied Data Analysis Lab II	1.5
EPID 571 Principles of Epidemiology	3
EPID 580 Public Health Ethics	1
EPID 593 MPH Practicum	2
EPID 604 Principles of Environmental Health	3

EPID 694 MPH Capstone Project	3
HCPR 601 Introduction to Health Policy	3
SBHD 605 Introduction to Social and Behavioral Health	3
M.P.H. electives	9
Students take a minimum of nine credit hours of elective course work	
selected according to an area(s) of interest in public health. These may	
include the following courses.	
BIOS 571 Clinical Trials	3
EPID 600 Introduction to Public Health	3
EPID 601 Contemporary Issues and Controversies in Public Health	3
EPID 603 Public Health Policy and Politics	3
EPID 620 Cancer Epidemiology	3
EPID 622 Maternal and Child Health	3
EPID 624 Chronic Disease Epidemiology	3
EPID 646 Epidemiology of Psychiatric and Substance Use Disorders	3
EPID 648 Behavioral Epidemiology	3
SBHD 608 Health Communication	3
SBHD 632 Health Disparities and Social Justice	3
SBHD 636 Community-based Participatory Research	3
Pharm.D. courses	155
IPEC 501 Foundations of Interprofesional Practice	1
IPEC 502 Interprofesional Quality Improvement and Patient Safety	1
MEDC 527 Basic Pharmaceutical Principles for the Practicing Pharmacist	3
MEDC 533 Pharmacognosy	2
•	
MEDC 542 Biotechnology-derived Therapeutic Agents	1
MEDC 543 Clinical Chemistry for the Pharmacist	2
MEDC 553 Clinical Therapeutics Module: Introduction to Medicinal	1
Chemistry	
PCEU 507 Pharmaceutics and Biopharmaceutics I	3
PCEU 508 Pharmacokinetics	3
PCEU 509 Pharmaceutics and Biopharmaceutics II	3
PCEU 615 Applied Pharmacokinetics	2
PHAR 509 Evidence-based Pharmacy I: Introduction to Pharmacy	2
Information Skills	_
	2
PHAR 513 Contemporary Pharmacy Practice	
PHAR 523 Foundations I	1.5
PHAR 524 Foundations II	1.5
PHAR 526 Community Pharmacy Practice	2
PHAR 529 Clinical Therapeutics Module: Introduction to Special	2
Populations	
PHAR 530 Introductory Pharmacy Practice Experience: Community	4
Practice	
PHAR 532 Introductory Pharmacy Practice Experience: Hospital Practice	3
PHAR 533 Introductory Pharmacy Practice Experience: Service-learning	0.5
PHAR 534 Foundations III	1
PHAR 535 Foundations IV	1
PHAR 540 Self-Care and Alternative and Complementary Treatments	3
PHAR 541 Patient Assessment in Pharmacy Practice	2
PHAR 543 Scholarship I	1
PHAR 544 Clinical Therapeutics Module: Cardiovascular	4.5
PHAR 545 The U.S. Health Care System	2
PHAR 547 Managing Professional Patient-centered Practice	1.5
PHAR 549 Biotechnology, Pharmacogenomics and Pharmacogenetics	2
PHAR 550 Scholarship II	2
PHAR 555 Clinical Therapeutics Module: Endocrinology	2.5
PHAR 556 Clinical Therapeutics Module VI: Neurology I	4
PHAR 565 Evidence-based Pharmacy II: Research Methods and Statistics	
PHAR 566 Evidence-based Pharmacy III: Drug Literature Evaluation	2
PHAR 602 Clinical Therapeutics Module: Psychiatry	3
PHAR 603 Clinical Therapeutics Module: Respiratory/Immunology	3
PHAR 604 Clinical Therapeutics Module: Infectious Diseases	4.5
PHAR 605 Clinical Therapeutics Module: Hematology/Oncology	2.5

PHAR 606 Clinical Therapeutics Module: Nephrology/Urology	2
PHAR 607 Clinical Therapeutics Module: Dermatology, EENT	1.5
PHAR 618 Clinical Therapeutics Module: Gastrointestinal/Nutrition	2.5
PHAR 619 Clinical Therapeutics Module: Women's Health/Bone and	2.5
Joint	
PHAR 620 Clinical Therapeutics Module: Critical Care/Toxicology	1.5
PHAR 621 Pharmacoeconomics	2
PHAR 622 Epidemiology and Pharmacy Practice	2
PHAR 640 Foundations V	1
PHAR 645 Foundations VI	1
PHAR 652 Health Promotion and Communication in Pharmacy Practice	2
PHAR 660 Community Pharmacy Practice Management II	2
PHAR 661 Institutional Pharmacy Management	2
PHAR 721 Clinical Therapeutics Module: Integrated Medication	1
Management	
PHAR 724 Pharmacy Law	2.5
PHAR 760 Acute Care Pharmacy Practice I	5
PHAR 761 Advanced Hospital Pharmacy Practice	5
PHAR 762 Geriatrics Pharmacy Practice	5
PHAR 763 Ambulatory Care Pharmacy Practice	5
PHAR 765 Elective I	5
PHAR 766 Elective II	5
PHAR 768 Advanced Community Pharmacy Practice	5
PHAR 771 Student Pharmacist Professionalism	1
PHAR 773 Acute Care Pharmacy Practice II	5
PHTX 606 Clinical Therapeutics Module: Introduction to Pharmacology	1
(Pharmacy)	
Electives	4

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements

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Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Department of Medicinal Chemistry

The Department of Medicinal Chemistry applies the latest strategies and concepts from several broad scientific disciplines including synthetic chemistry, molecular modeling, computational biology, structural genomics, and pharmacology.

Administration

Richard A. Glennon
Professor and Department Chair

Department of Pharmaceutics

The Department of Pharmaceutics offers graduate study leading to the degrees of Master of Science and Doctor of Philosophy in Pharmaceutical Sciences. In addition, students may elect to pursue a joint Pharm.D./Ph.D. program. These programs provide the preparation and research experience for academic, federal and industrial careers.

Administration

Peter R. Byron

Professor and Department Chair

Department of Pharmacotherapy and Outcomes Science

The Department of Pharmacotherapy and Outcomes Science is the largest of the three departments at the VCU School of Pharmacy. The focus of the department is pharmacotherapy (the safe and effective use of drugs in humans), and pharmacy administration (evaluation of the social and economic impact of drug therapy in humans and in health care systems).

Administration

Donald F. Brophy Professor and Chair



2014-15 Graduate and Professional Programs Bulletin

School of Social Work

The oldest of its kind in the South, Virginia Commonwealth University's School of Social Work was established in 1917 as the Richmond School of Social Economy. Later renamed the School of Social Work and Public Health, it became the first unit of Richmond Professional Institute. The school was created initially in response to community needs in working with World War I veterans and their social and health problems. Subsequent development of the school has expanded activity into all areas of human service.

With the creation of VCU in 1968, the School of Social Work became a unit of what is now the university's Monroe Park Campus. The school offers baccalaureate-, master's- and doctoral-level programs in Richmond, and the capital provides educational opportunities in many state government agencies. Through 2012 VCU's School of Social Work also offers an off-campus M.S.W. program in Northern Virginia. Located in Alexandria, its proximity to Washington, D.C. allows additional field opportunities with federal agencies and national organizations.

Social work education at VCU is highly individualized and is characterized by a close relationship between faculty and students. Faculty members help students learn the form and method of social work practice, and students are encouraged to discover their own unique style of helping others. The school's educational programs are designed to prepare students for practice in many different kinds of social agencies. A combination of classroom courses and concurrent fieldwork experiences facilitates integration of knowledge, attitudes and skills necessary for professional practice. The integrated class and fieldwork curriculum offers students the opportunity to acquire a substantial base in social work practice, patterns of human behavior and development, organization and operation of social welfare programs and policies, the methods of scientific inquiry in social work, and the needs of special populations.

The profession of social work

The goals of the profession of social work are to provide services to persons who are vulnerable due to a lack of personal, social and/or institutional resources to meet their emotional, health and economic needs. Social work practice is the application of professional knowledge, skills and values across a range of settings and populations. The focus of practice is on individuals, couples, families, groups and communities. In addition to direct clinical social work practice, social workers are involved in the administration of human service programs, social planning, the development of social policies, research and evaluation, and teaching.

In order to achieve the goals of promoting social justice and enhancing well-being for individuals, families, groups and communities, social workers provide a variety of services primarily in public and nonprofit organizational contexts. Examples of the range of settings in which social workers practice include community centers, public social services, child welfare, residential treatment facilities, schools, community mental health agencies, family and children's service agencies, psychiatric and acute care hospitals, substance abuse treatment facilities, services for the elderly, court services and adult and juvenile rehabilitation facilities.

Professional education for social work practice dates to the early 1900s. The contributions of the profession are evidenced in health and mental health care, the well-being of children and families, the development and implementation of social policies, the planning, delivery and evaluation of human services, and a broad base of research on the human condition. The knowledge base of the profession and the integration of related social, behavioral and biological sciences acquired through professional education facilitates the contributions of social workers in multidisciplinary contexts.

Social work practice is designed to enrich quality of life by enabling individuals, groups, communities and organizations to achieve their greatest potential development. The goal of the School of Social Work at VCU is to provide professional education in response to these needs.

Administration

1000 Floyd Avenue P.O. Box 842027 Richmond, Virginia 23284-2027 (804) 828-1030 Fax: (804) 828-0716 socialwork.vcu.edu

James E. Hinterlong Dean

Humberto Fabelo

Associate Dean for Academic and Student Affairs

Elizabeth M.Z. Farmer

Associate Dean for Research

Anne J. Kisor

Assistant Dean for Administration and Finance

Sarah Kye Price

Director, Ph.D. Program

Melissa L. Abell

Director, M.S.W. Program

Ananda Newmark

Director, B.S.W. Program

Accreditation

VCU's Bachelor of Social Work and Master of Social Work programs are accredited by the Commission on Accreditation of the Council on Social Work Education — the accrediting body for all schools of social work at both the baccalaureate and master's levels. Copies of the Accreditation Standards and Curriculum Policy Statement are available in the Office of the Dean.

Financial assistance

Although financial assistance is limited, some funds are available from a variety of sources. No prospective student should refrain from seeking admission to the school for financial reasons alone. Besides the federal financial aid programs outlined in the undergraduate or graduate study areas of the bulletins, the university and the school also offer scholarships and/or teaching assistantships at all degree levels.

The H. H. Hibbs Loan Fund was established by the School of Social Work Alumni Association for short-term emergency needs. Enrolled students who wish to apply for a loan should discuss this with their faculty adviser and the associate dean.

For more information on these financial aid opportunities, visit the School of Social Work Web site at www.vcu.edu/slwweb/currentstudents/financial_support.html.

Continuing education

Continuing education is a vital part of professional development. The School of Social Work offers institutes and workshops as part of the school's commitment to enhance social work practice and broaden educational experiences for students, social workers, field instructors and others in social service delivery systems.

State, regional and local agencies and institutions frequently identify educational and training needs in content or skill areas for selected staff members. The school, through contractual arrangements, contributes expertise in designing and implementing short-term training courses and materials.

Offerings are planned throughout the year. For further information about specific continuing education courses, visit the School of Social Work Web site at www.vcu.edu/slwweb/alumni/continuinged.html or address inquiries to the Director of Continuing Education, School of Social Work, Virginia Commonwealth University, 1001 W. Franklin St., Richmond, VA 23284-2027.

Associations and student interest groups

Alumni Association

The School of Social Work Alumni Association supports the school, its students and faculty. All graduates of the School of Social Work are members of the alumni association. The association falls under the umbrella of the VCU Alumni Association

B.S.W. Student Association

The Baccalaureate Social Work Student Association, an organization of students in the Bachelor of Social Work Program, was established to facilitate communication among students and between the student body and the school faculty and staff. This organization plays a vital role in the educational process. Through student representation on committees within the school, BSWSA members participate in

decision-making processes. In addition, the association enables students to conduct a variety of social and professional activities throughout the year.

M.S.W. Student Association

The Master of Social Work Student Association is the organization of M.S.W. students enrolled in the school. Established for the purposes of facilitating communication among students and between the student body and the school, the association provides a means by which student concerns and ideas can be formulated and acted upon. It also enables students to conduct a variety of social, civic and educational activities throughout the year.

This organization plays a vital role in the educational process. Student contributions to the governance and curriculum of the school are of value to both the institution and the students. Participation in the decision-making process is accomplished through student representation on committees. Faculty and students work closely together throughout the year to meet the needs of graduate social work education. Students participate as full members of committees within the school.

Association of Black Social Workers - VCU Chapter

The Association of Black Social Workers was established to create and maintain an atmosphere of unity and support among black students in the School of Social Work. It serves to assist students in their personal and professional growth and development. Membership in this organization helps students to develop a keen awareness of the acute needs of the black community and the active role that must be assumed by the dedicated black professional social worker in promoting the general welfare of black citizens. To attain these goals, the organization utilizes the educational process and related experiences of students at the school and in fieldwork. Students are encouraged to participate in all phases of the academic environment

International Student Association (Northern Virginia Campus)

The International Student Association provides a forum for discussion and serves as a resource for information regarding all aspects of international social work. The association sponsors lectures, speakers and open discussions. All students, faculty or alumni who are interested in international social work are invited to become members or to attend meetings.

Doctoral Student Association

The Doctoral Student Association is a collegial association available to all doctoral students regardless of full- or part-time status. Its primary purpose is to provide information, resources, advocacy and support to students throughout the doctoral program experience. Governance of the association is conducted on a rotating leadership and consensual basis. The Doctoral Student Association provides doctoral student representatives to various committees of the school governance structure.

Other student interest groups

The School of Social Work supports the development of groups that address a variety of student needs and interests.

Social work courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to undergraduate- and master's-level social work (SLWK) courses.

This link will take you to a list doctoral-level courses in social work (SWKD).

M.S.W. Program

Elizabeth Dungee-Anderson Director, M.S.W. Program eddungee@vcu.edu (804) 828-1043

Jeffrey Schwamm

Associate Director, M.S.W. Program and Coordinator of Northern Virginia Off-Campus Program

ibschwamm@vcu.edu

(703) 823-4131

The M.S.W. Program administers the Master of Social Work curriculum, including the off-campus program in Northern Virginia.

Social Work, Master of (M.S.W.) with a concentration in administration, planning and policy practice

Program accreditation

Council on Social Work Education

Graduate program director

Melissa L. Abell, Ph.D. M.S.W. program director mlabell@vcu.edu (804) 828-2007

Program website: socialwork.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Public Health, Master of (M.P.H.)/Social Work, Master of (M.S.W.) [combined] Social Work, Doctor of Philosophy (Ph.D.)

Social Work, Master of (M.S.W.) with a concentration in clinical practice

Social Work, Master of (M.S.W.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Gender Violence Intervention, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/school social work practice certification [combined]

Social Work, Master of (M.S.W.)/Juris Doctor (J.D.) with the University of Richmond [combined]

Social Work, Master of (M.S.W.)/Divinity, Master of (M.Div.) from the Baptist Theological Seminary at Richmond or the Samuel DeWitt Proctor School of Theology at Virginia Union University [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Social Work, Master of (M.S.W.) with a concentration in administration, planning and policy practice $\begin{tabular}{ll} \hline \end{tabular}$

Degree: Semester(s) of Deadline dates: Test requirements:
M.S.W. entry:
Summer (advanced standing format)

Fall (regular standing formats – all oncampus part- and full-time and distance education)

Special requirements:

The School of Social Work requires a specific outline for the personal statement that is different from what is shown in the graduate admissions website and also requires that a checklist be submitted with application materials. Please visit the School of Social Work website for this specific information.

Full-time, part-time and distance education format applicants are admitted to begin study in the fall semester only. Advanced standing format applicants are admitted for the summer session only. At the time of application, applicants may apply for only one of the following: full-time on-campus Richmond, part-time on-campus Richmond, part-time distance education or advanced standing. Application forms and instructions for applying to all graduate programs are available on the Graduate Admissions website.

In addition to the general admission requirements of the VCU Graduate School, the School of Social Work has established the following minimum criteria for admission to the 60-credit hour full-time or part-time format:

- 1. A bachelor's degree from an accredited college or university
- 2. A cumulative GPA of 3.0 on a 4.0 scale for all undergraduate course work and a 3.0 (B) for the last 60 credit hours
- 3. A broad liberal arts background. Applicants must have completed a minimum of 30 semester credit hours in the liberal arts. Applicants must have completed at least one course (unless otherwise specified) in each of the following four areas:
 - Mathematics/computer sciences: math, logic, statistics, computer sciences
 - Humanities: English composition, literature, art history, music appreciation, philosophy, languages, religious studies, multicultural studies
 - Social and behavioral sciences: psychology, sociology, anthropology, history, political science, economics (with at least three credit hours in psychology and three credit hours in sociology)
 - Biology and physical sciences: anatomy/physiology, botany, general biology, zoology, chemistry, ecology, physics, geology, astronomy (with a minimum of three credit hours in human biology content)

Applicants who have not completed all the liberal arts prerequisites may be considered for admission but must have completed the prerequisite courses prior to enrollment and must provide official transcripts to document their completion. Courses may be completed at a community college or four-year institution. In addition to the academic requirements, the applicant must demonstrate commitment to social welfare and social justice. This should be reflected in (1) the personal statement and (2) the applicant's academic background, social work employment, internships and volunteer work in community agencies serving vulnerable and/or oppressed populations.

General admission procedures

Applications will only be reviewed when they are complete and received by the deadline. This includes the application form, three letters of reference (such as from faculty, employers and/or colleagues who know the applicant's academic and work/volunteer abilities), official transcripts from all undergraduate and graduate colleges and universities attended, including VCU transcripts from those who are VCU graduates, a personal statement based upon the outline provided on the M.S.W. website and an employment and volunteer experience resume. The applicant is responsible for ensuring that all materials are submitted prior to the application deadline.

Admission to the advanced standing format

The advanced standing format leads to a Master of Social Work degree upon completion of 42 credit hours. This format begins in late May, continues through the summer and culminates with graduation the following May. The advanced standing format is offered full-time only and cannot be pursued on a part-time basis. Admission to the advanced standing format is available to a select group of students with a bachelor's degree (B.S.W.) from an undergraduate social work program accredited by the Council on Social Work Education, completed no more than five years prior to the date of application to the M.S.W. program. The minimum requirement for admission to the advanced standing format is a 3.2 GPA on a 4.0 scale for all undergraduate course work. As part of the application packet, applicants must submit their field practicum evaluation(s) and a reference letter from the field practicum faculty. Applicants who meet these criteria will be scheduled for a structured on-campus interview, which includes a written case assessment. Refer to the M.S.W. website for more information.

Transfer admits

Applicants transferring from other CSWE-accredited M.S.W. programs must submit course syllabi, field practicum evaluations and a statement of good standing from the dean or director of the program from which the student is transferring. These materials must be submitted in addition to the required application form, transcripts, personal statement, resume and reference letters. No more than 30 credit hours will be accepted in transfer, and transfer credit will be awarded in accordance with university policies governing transfer credit and time limits for degree completion.

Applicants from non-social work graduate programs must submit course syllabi for transfer evaluation. A maximum of six credit hours of elective course work may be accepted in transfer from non-social work graduate programs in accordance with Graduate School policies governing transfer credit and time limits for degree completion. No course credit is given for life or work experience.

Course waiver information for new M.S.W. students

Students may request to be waived from courses in the M.S.W. program if they can demonstrate they have satisfactorily completed the equivalent courses. Students must present evidence of content equivalency to the M.S.W. program director and have earned an A or B grade in the courses that are the basis for the waiver request; these courses must have been completed within the past five years. A portfolio process is used to assess equivalency. Graduate students from non-M.S.W. programs, from B.S.W. programs (but not in the advanced standing format), and from B.A., B.S. or other undergraduate programs may be waived from no more than three of the following foundation courses:

SLWK 601 and 610 Human Behavior in the Social Environment I and II SLWK 609 Foundations of Research in Social Work Practice

The course waiver does not result in award of credit. Credit may be awarded only through transfer of graduate courses (see Transfer Policy). Students who are granted waivers but not transfer credit hours must take elective courses to fulfill the number of credit hours that have been waived. Students interested in pursuing a waiver for one or more of the specified foundation courses should contact the M.S.W. program office to request the Equivalency Portfolio Form(s) and instructions.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The VCU School of Social Work offers a graduate professional curriculum accredited by the Council on Social Work Education leading to the Master of Social Work degree. The purpose of the M.S.W. program at VCU is to educate persons for advanced practice in either clinical social work or social work administration, planning and policy practice. The guiding principle in educating students is the promotion of a more just society that includes a commitment to the value of diversity and social work practice in a multicultural society. The VCU School of Social Work emphasizes critical thinking, self-awareness, data-based decision-making and ethical integrity. Graduates of this program will be able to address personal and social problems; formulate, implement and evaluate policies and programs; engage in knowledge development for the profession; and influence community decision-making. The educational program focuses on service to and empowerment of people who experience oppression or vulnerability due to inadequate or inequitable distribution of personal, social or institutional resources. Within this context, social work practice is defined as the application of professional knowledge, skills and values across a range of settings and populations for the prevention and amelioration of personal and social problems. The interactions among persons and their environments are the primary targets of social work practice. Services provided by social workers include the restoration, rehabilitation, maintenance and enhancement of optimal functioning of individuals, families, groups, communities and organizations. Knowledge for social work practice is based on analysis and critical application of qualitative and quantitative research from within the profession and related social, behavioral and biological sciences. Skill in professional practice is based on the differential application of theories and research findings about people in their sociocultural

and organizational contexts. Skill is developed by the social worker through the educational process, self-critical practice and the use of supervision and consultation. Values in social work practice are articulated in the profession's code of ethics and reflect the core values of service, social justice, dignity and worth of each individual, importance of human relationships, integrity, and competence.

Student learning outcomes

- 1. A foundation of knowledge, skills, ethics and values essential for work with individuals, families, groups, communities and organizations
- A concentration that prepares students for advanced practice in clinical social work or social work administration, planning and policy practice in a range of settings
- 3. To apply the profession's values and ethical principles
- The implications of diversity by through education on identifying cultural strengths and ways to counteract individual and institutional prejudice, oppression and discrimination
- 5. To use research methods to analyze and critically evaluate professional practice, programs and service delivery systems
- 6. Advocacy and involvement in advocacy to affect social and economic justice

Degree requirements

In addition to general VCU Graduate School graduation requirements, the regular standing format for the M.S.W. degree requires the completion of 60 credit hours of graduate study (two years of full-time study). The first 30 credit hours (foundation curriculum) may be taken in one academic year on a full-time basis or may be extended to a maximum of two years in the structured part-time format. To earn the M.S.W. degree in the advanced standing format requires 42 credits of full-time graduate study. Students in the advanced standing format do not complete the foundation curriculum but instead take 12 credit hours during the summer prior to entering the concentration curriculum.

All students select an area of concentration for the last 30 credit hours, which can be completed in one academic year on a full-time basis or extended to a maximum of two years in the structured part-time format. Students are usually in a field instruction practicum two days each week during the foundation curriculum and three days each week during the concentration curriculum. Course credit for work or life experience is not granted in lieu of M.S.W. course credit hours.

The purpose of the Master of Social Work program is to prepare graduate-level social workers with mastery of the knowledge, values and skills essential for advanced social work practice in a multicultural society.

The foundation curriculum comprises the first 30 credit hours of the M.S.W. program. The purpose of the foundation practice, in laying the groundwork for concentration study, is to develop the knowledge and skill base necessary to apply and carry out core competencies (relationship building, problem identification, assessment, selecting and planning interventions, implementation, and evaluation) with individuals, families, groups, communities and organizations. Foundation practice emphasizes critical thinking, client strengths, commitment to social work values and ethical principles, self-awareness, professional development, evidence-based decision-making, multicultural competency and social and economic justice. The foundation curriculum includes courses in social work practice, human behavior, social policy, social justice, research and field instruction.

Concentration options

After completion of the foundation year of study or summer studies for advanced standing, M.S.W. students choose an advanced concentration in clinical practice or in administration, planning and policy practice. The concentration curriculum prepares graduates for active roles in practice and program evaluation and in the generation of knowledge for future practice, programs and policy.

Administration, planning and policy practice concentration (SWAPPP)

The concentration in administration, planning and policy practice prepares graduates to become leaders skilled in analyzing, formulating, implementing and evaluating policies, plans and programs. The knowledge, values and skills that are taught emphasize current theory and research through classroom and field-based experiences. Practice takes place in the context of a complex, changing environment in which communities and governmental, legislative, nonprofit and for-profit organizations advocate for, plan and deliver social services and advocate for social change. The major themes within the integrated curriculum are social

and economic justice, diversity, leadership and advocacy. This concentration is not available to distance education students at this time.

Curriculum requirements

Courses	Credit hours
Foundation courses	30
SLWK 601 Human Behavior in the Social Environment I	3
SLWK 602 Policy, Community and Organizational Practice I	3
SLWK 603 Social Work and Social Justice	3
SLWK 604 Social Work Practice with Individuals, Families and Groups I	3
SLWK 605 Social Work Practice with Individuals, Families and Groups II	3
SLWK 606 Policy, Community and Organizational Practice II	3
SLWK 609 Foundations of Research in Social Work Practice	3
SLWK 610 Human Behavior in the Social Environment II	3
SLWK 693 and 694 Foundation Field Instruction I and II or SLWK 695	6
Block Foundation Field Instruction*	
*Part-time students may choose a block field placement in lieu of SLWK 693 and SLWK 694. Only one field placement can be a block placement	

In the advanced standing format students do not take foundation courses outlined above, but instead take 12 credit hours in the summer prior to their concentration year that include courses in practice/human behavior, policy, and research, in addition to completing a field education course with a field placement that will extend throughout their concentration year of study. The purpose of this curriculum is to enhance and restore understanding of the foundation curriculum content for entering BSW students prior to entering the concentration year.

Advanced standing format

Summer semester prior to concentration

SLWK 607 Social Work Practice with Individuals, Families and Groups for	3
Advanced-standing Students	
SLWK 608 Social Work Practice in Organizations and Communities for	3
Advanced-standing Students	
SLWK 611 Social Work Research for Advanced-standing Students	3
SLWK 612 Advanced-standing Field Instruction	3
Required administration, planning and policy concentration courses	24
SLWK 710 Concentration Social Policy	3
SLWK 711 Strategies for Social Work Planning and Administrative Practice	3
SLWK 712 Social Work Planning and Administrative Practice I	3
SLWK 713 Social Work Planning and Administrative Practice II	3
SLWK 714 Research for Social Work Administration, Planning and Policy	3
Practice I	
SLWK 715 Research for Social Work Administration, Planning and Policy	3
Practice II	
SLWK 793 and 794 Concentration Field Instruction or SLWK 795	6
Concentration Block Field Instruction*	
*Part-time students may choose a block field placement in lieu of SLWK 793	
and SLWK 794. Only one field placement can be a block placement	

A variety of electives are offered every semester and in the summer. The following courses have been approved as electives by the university; however elective offerings for any particular semester are limited. In addition, electives from outside of the School of Social Work are accepted as part of our combined offerings for dual degrees and certificates. Other electives from outside of the School of Social Work may be accepted with prior approval from the M.S.W. program director.

Electives

SLWK 716 Concentration Social Policy for Administration, Planning and	3
Policy Practice	
SLWK 719 Gender and Substance Abuse: Social Work Practice Issues	3
SLWK 726 Social Work Practice and Health Care	3

6

SKWK 727 Trauma and Social Work Practice: Theory, Assessment and	3
Intervention	
SLWK 728 The Interdisciplinary Team in Social Work Practice	3
SLWK 739 Social Work and the Law	3
SLWK 741 Social Work Practice and the Neurosciences	3
SLWK 745 Social Work Practice in Community Mental Health	3
SLWK 746 Social Work Practice and Psychopharmacology	3
SLWK 747 Social Work Intervention with Children and Adolescents	3
SLWK 748 Group Methods in Social Work Practice	3
SLWK 749 Social Work Intervention in Substance Abuse	3
SLWK 755 Social Work Practice in Organizing for Social Change	3
SLWK 759 Art Therapy in Social Work Practice	3
SLWK 761 Interpersonal Violence	3
SLWK 770 International Social Work Study Abroad	3
SLWK 791 Topical Seminar	1-3
Total graduate credit hours required (minimum)	60

Sample plan of study

Courses		Credit hours
First year, fall semester		15
SLWK 601 Human Behavior in the Social Environment I	3	
SLWK 602 Policy, Community and Organizational Practice I	3	
SLWK 603 Social Work and Social Justice	3	
SLWK 604 Social Work Practice with Individuals, Families and Groups I	3	
SLWK 693 Foundation Field Instruction	3	
First year, spring semester		15
SLWK 605 Social Work Practice with Individuals, Families and Groups II	3	
SLWK 606 Policy, Community and Organizational Practice II	3	
SLWK 609 Foundations of Research in Social Work Practice	3	
SLWK 610 Human Behavior in the Social Environment II	3	
SLWK 694 Foundation Field Instruction II	3	
Second year, fall semester		15
SLWK 711 Strategies for Social Work Planning and Administrative Practice	3	
SLWK 712 Social Work Planning and Administrative Practice I	3	
SLWK 714 Research for Social Work Administration, Planning and Policy Practice I	3	
SLWK 793 Concentration Field Instruction	3	
Elective	3	
Second year, spring semester		15
SLWK 710 Concentration Social Policy	3	
SLWK 713 Social Work Planning and Administrative Practice II	3	
SLWK 715 Research for Social Work Administration, Planning and Policy Practice II	3	
SLWK 794 Concentration Field Instruction	3	
Elective	3	
Total graduate credit hours required (minimum)		60

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's

academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Social Work, Master of (M.S.W.) with a concentration in clinical practice

Program accreditation

Council on Social Work Education

Graduate program director

Melissa L. Abell, Ph.D. M.S.W. program director mlabell@vcu.edu (804) 828-2007

Program website: socialwork.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Public Health, Master of (M.P.H.)/Social Work, Master of (M.S.W.) [combined] Social Work, Doctor of Philosophy (Ph.D.)

Social Work, Master of (M.S.W.) with a concentration in administration, planning and policy practice

Social Work, Master of (M.S.W.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Gender Violence Intervention, Certificate in (Post-baccalaureate graduate certificate) [combined]

 $Social\ Work,\ Master\ of\ (M.S.W.)/Nonprofit\ Management,\ Certificate\ in\ (Post-baccalaureate\ graduate\ certificate)\ [combined]$

Social Work, Master of (M.S.W.)/school social work practice certification [combined]

Social Work, Master of (M.S.W.)/Juris Doctor (J.D.) with the University of Richmond [combined]

Social Work, Master of (M.S.W.)/Divinity, Master of (M.Div.) from the Baptist Theological Seminary at Richmond or the Samuel DeWitt Proctor School of Theology at Virginia Union University [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Social Work, Master of (M.S.W.) with a concentration in clinical practice Degree: Semester(s) of Deadline dates: Test requirements: M.S.W. entry: Summer (advanced standing format) Fall (regular standing formats – all oncampus part- and full-time and distance education)

Special requirements:

The School of Social Work requires a specific outline for the personal statement that is different from what is shown in the graduate admissions website and also requires that a checklist be submitted with application materials. Please visit the School of Social Work website for this specific information.

Full-time, part-time and distance education format applicants are admitted to begin study in the fall semester only. Advanced standing format applicants are admitted for the summer session only. At the time of application, applicants may apply for only one of the following: full-time on-campus Richmond, part-time on-campus Richmond, part-time distance education or advanced standing. Application forms and instructions for applying to all graduate programs are available on the Graduate Admissions website.

In addition to the general admission requirements of the VCU Graduate School, the School of Social Work has established the following minimum criteria for admission to the 60-credit hour full-time or part-time format:

- 1. A bachelor's degree from an accredited college or university
- A cumulative GPA of 3.0 on a 4.0 scale for all undergraduate course work and a 3.0 (B) for the last 60 credit hours
- 3. A broad liberal arts background. Applicants must have completed a minimum of 30 semester credit hours in the liberal arts. Applicants must have completed at least one course (unless otherwise specified) in each of the following four areas:
 - Mathematics/computer sciences: math, logic, statistics, computer sciences
 - Humanities: English composition, literature, art history, music appreciation, philosophy, languages, religious studies, multicultural studies
 - Social and behavioral sciences: psychology, sociology, anthropology, history, political science, economics (with at least three credit hours in psychology and three credit hours in sociology)
 - d. Biology and physical sciences: anatomy/physiology, botany, general biology, zoology, chemistry, ecology, physics, geology, astronomy (with a minimum of three credit hours in human biology content)

Applicants who have not completed all the liberal arts prerequisites may be considered for admission but must have completed the prerequisite courses prior to enrollment and must provide official transcripts to document their completion. Courses may be completed at a community college or four-year institution. In addition to the academic requirements, the applicant must demonstrate commitment to social welfare and social justice. This should be reflected in (1) the personal statement and (2) the applicant's academic background, social work employment, internships and volunteer work in community agencies serving vulnerable and/or oppressed populations.

General admission procedures

Applications will only be reviewed when they are complete and received by the deadline. This includes the application form, three letters of reference (such as from faculty, employers and/or colleagues who know the applicant's academic and work/volunteer abilities), official transcripts from all undergraduate and graduate colleges and universities attended, including VCU transcripts from those who are VCU graduates, a personal statement based upon the outline provided on the M.S.W. website and an employment and volunteer experience resume. The applicant is responsible for ensuring that all materials are submitted prior to the application deadline.

Admission to the advanced standing format

The advanced standing format leads to a Master of Social Work degree upon completion of 42 credit hours. This format begins in late May, continues through the summer and culminates with graduation the following May. The advanced standing format is offered full-time only and cannot be pursued on a part-time basis. Admission to the advanced standing format is available to a select group of students with a bachelor's degree (B.S.W.) from an undergraduate social work program accredited by the Council on Social Work Education, completed no more than five years prior to the date of application to the M.S.W. program. The minimum requirement for admission to the advanced standing format is a 3.2 GPA on a 4.0 scale for all undergraduate course work. As part of the application packet, applicants must submit their field practicum evaluation(s) and a reference letter from the field practicum faculty. Applicants who meet these criteria will be scheduled for a structured on-campus interview, which includes a written case assessment. Refer to the M.S.W. website for more information.

Transfer admits

Applicants transferring from other CSWE-accredited M.S.W. programs must submit course syllabi, field practicum evaluations and a statement of good standing from the dean or director of the program from which the student is transferring. These materials must be submitted in addition to the required application form, transcripts, personal statement, resume and reference letters. No more than 30 credit hours will be accepted in transfer, and transfer credit will be awarded in accordance with university policies governing transfer credit and time limits for degree completion.

Applicants from non-social work graduate programs must submit course syllabi for transfer evaluation. A maximum of six credit hours of elective course work may be accepted in transfer from non-social work graduate programs in accordance with Graduate School policies governing transfer credit and time limits for degree completion. No course credit is given for life or work experience.

Course waiver information for new M.S.W. students

Students may request to be waived from courses in the M.S.W. program if they can demonstrate they have satisfactorily completed the equivalent courses. Students must present evidence of content equivalency to the M.S.W. program director and have earned an A or B grade in the courses that are the basis for the waiver request; these courses must have been completed within the past five years. A portfolio process is used to assess equivalency. Graduate students from non-M.S.W. programs, from B.S.W. programs (but not in the advanced standing format), and from B.A., B.S. or other undergraduate programs may be waived from no more than three of the following foundation courses:

SLWK 601 and 610 Human Behavior in the Social Environment I and II SLWK 609 Foundations of Research in Social Work Practice

The course waiver does not result in award of credit. Credit may be awarded only through transfer of graduate courses (see Transfer Policy). Students who are granted waivers but not transfer credit hours must take elective courses to fulfill the number of credit hours that have been waived. Students interested in pursuing a waiver for one or more of the specified foundation courses should contact the M.S.W. program office to request the Equivalency Portfolio Form(s) and instructions.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The VCU School of Social Work offers a graduate professional curriculum accredited by the Council on Social Work Education leading to the Master of Social Work degree. The purpose of the M.S.W. program at VCU is to educate persons for advanced practice in either clinical social work or social work administration, planning and policy practice. The guiding principle in educating students is the promotion of a more just society that includes a commitment to the value of diversity and social work practice in a multicultural society. The VCU School of Social Work emphasizes critical thinking, self-awareness, data-based decision-making and ethical integrity. Graduates of this program will be able to address personal and social problems; formulate, implement and evaluate policies and programs; engage in knowledge development for the profession; and influence community decision-making. The educational program focuses on service to and empowerment of people who experience oppression or vulnerability due to inadequate or inequitable distribution of personal, social or institutional resources. Within this context, social work practice is defined as the application of professional knowledge, skills and values across a range of settings and populations for the prevention and amelioration of personal and social problems. The interactions among persons and their environments are the primary targets of social work practice. Services provided by social workers include the restoration, rehabilitation, maintenance and enhancement of optimal functioning of individuals, families, groups, communities and organizations. Knowledge for social work practice is based on analysis and critical application of qualitative and quantitative research from within the profession and related social, behavioral and biological sciences. Skill in professional practice is based on the differential application of theories and research findings about people in their sociocultural and organizational contexts. Skill is developed by the social worker through the educational process, self-critical practice and the use of supervision and consultation. Values in social work practice are articulated in the profession's code of ethics and reflect the core values of service, social justice, dignity and worth of each individual, importance of human relationships, integrity, and competence.

Student learning outcomes

- A foundation of knowledge, skills, ethics and values essential for work with individuals, families, groups, communities and organizations
- A concentration that prepares students for advanced practice in clinical social work or social work administration, planning and policy practice in a range of settings
- 3. To apply the profession's values and ethical principles
- The implications of diversity by through education on identifying cultural strengths and ways to counteract individual and institutional prejudice, oppression and discrimination
- To use research methods to analyze and critically evaluate professional practice, programs and service delivery systems
- 6. Advocacy and involvement in advocacy to affect social and economic justice

Degree requirements

In addition to general VCU Graduate School graduation requirements, the regular standing format for the M.S.W. degree requires the completion of 60 credit hours of graduate study (two years of full-time study). The first 30 credit hours (foundation curriculum) may be taken in one academic year on a full-time basis or may be extended to a maximum of two years in the structured part-time format. To earn the M.S.W. degree in the advanced standing format requires 42 credits of full-time graduate study. Students in the advanced standing format do not complete the foundation curriculum but instead take 12 credit hours during the summer prior to entering the concentration curriculum.

All students select an area of concentration for the last 30 credit hours, which can be completed in one academic year on a full-time basis or extended to a maximum of two years in the structured part-time format. Students are usually in a field instruction practicum two days each week during the foundation curriculum and three days each week during the concentration curriculum. Course credit for work or life experience is not granted in lieu of M.S.W. course credit hours.

The purpose of the Master of Social Work program is to prepare graduate-level social workers with mastery of the knowledge, values and skills essential for advanced social work practice in a multicultural society.

The foundation curriculum comprises the first 30 credit hours of the M.S.W. program. The purpose of the foundation practice, in laying the groundwork for concentration study, is to develop the knowledge and skill base necessary to apply and carry out core competencies (relationship building, problem identification, assessment, selecting and planning interventions, implementation, and evaluation) with individuals, families, groups, communities and organizations. Foundation practice emphasizes critical thinking, client strengths, commitment to social work values and ethical principles, self-awareness, professional development, evidence-based decision-making, multicultural competency and social and economic justice. The foundation curriculum includes courses in social work practice, human behavior, social policy, social justice, research and field instruction.

Concentration options

After completion of the foundation year of study or summer studies for advanced standing, M.S.W. students choose an advanced concentration in clinical practice or in administration, planning and policy practice. The concentration curriculum prepares graduates for active roles in practice and program evaluation and in the generation of knowledge for future practice, programs and policy.

Clinical practice concentration

Clinical social work practice involves a mutual problem-solving process in which multidimensional assessment, goal setting, planned intervention and evaluation are prominent components, all of which are informed by current scientific knowledge. All clinical practice is grounded in the values and purposes of the social work profession. The goal of clinical social work is to promote effective coping with life challenges and transitions. This is achieved by helping people solve problems, change dysfunctional behavior, resolve emotional and interpersonal conflicts, develop and use social networks and resources, and maintain achieved capacities and strengths. This goal rests on the fundamental belief in the dignity of all human beings and in communal responsibility for all members of the multicultural society.

Clinical social work practice takes place in the context of a purposeful relationship. The conscious use of the professional self is central in building and maintaining such relationships. Interventions may involve therapeutic, supportive, educational and resource-management activities. These interventions are based on a process of strengthening and reordering organizational structures in the lives of clients: intrapersonal (including intrapsychic), interpersonal, institutional and/or social.

Curriculum requirements

Courses	
Foundation courses	30
SLWK 601 Human Behavior in the Social Environment I	3
SLWK 602 Policy, Community and Organizational Practice I	3
SLWK 603 Social Work and Social Justice	3
SLWK 604 Social Work Practice with Individuals, Families and Groups I	3
SLWK 605 Social Work Practice with Individuals, Families and Groups II	3
SLWK 606 Policy, Community and Organizational Practice II	3
SLWK 609 Foundations of Research in Social Work Practice	3
SLWK 610 Human Behavior in the Social Environment II	3
SLWK 693 and 694 Foundation Field Instruction I and II or SLWK 695 Block Foundation Field Instruction*	6

*Part-time students may choose a block field placement in lieu of SLWK 693 and SLWK 694. Only one field placement can be a block placement

In the advanced standing format students do not take foundation courses outlined above, but instead take 12 credit hours in the summer prior to their concentration year that include courses in practice/human behavior, policy, and research, in addition to completing a field education course with a field placement that will extend throughout their concentration year of study. The purpose of this curriculum is to enhance and restore understanding of the foundation curriculum content for entering BSW students prior to entering the concentration year.

Advanced standing format

Summer semester prior to concentration

SLWK 607 Social Work Practice with Individuals, Families and Groups for Advanced-standing Students	3
SLWK 608 Social Work Practice in Organizations and Communities for Advanced-standing Students	3
SLWK 611 Social Work Research for Advanced-standing Students	3
SLWK 612 Advanced-standing Field Instruction	3
Required clinical concentration courses	24
SLWK 703 Mental, Emotional and Behavioral Disorders	3
SLWK 704 Clinical Social Work Practice I	3
SLWK 705 Clinical Social Work Practice II	3
SLWK 706 Research for Clinical Social Work Practice I	3
SLWK 707 Research for Clinical Social Work Practice II	3
SLWK 710 Concentration Social Policy	3
SLWK 793 and 794 Concentration Field Instruction or SLWK 795 Concentration Block Field Instruction*	6
*Part-time students may choose a block field placement in lieu of SLWK 793	

A variety of electives are offered every semester and in the summer. The following courses have been approved as electives by the university; however elective offerings for any particular semester are limited. In addition, electives from outside of the School of Social Work are accepted as part of our combined offerings for dual degrees and certificates. Other electives from outside of the School of Social Work may be accepted with prior approval from the M.S.W. program director.

Electives

and SLWK 794. Only one field placement can be a block placement

SLWK 716 Concentration Social Policy for Social Work Administration, Planning and Policy Practice	3
SLWK 719 Gender and Substance Abuse: Social Work Practice Issues	3
SLWK 726 Social Work Practice and Health Care	3
SKWK 727 Trauma and Social Work Practice: Theory, Assessment and	3
Intervention	
SLWK 728 The Interdisciplinary Team in Social Work Practice	3
SLWK 739 Social Work and the Law	3
SLWK 741 Social Work Practice and the Neurosciences	3
SLWK 745 Social Work Practice in Community Mental Health	3
SLWK 746 Social Work Practice and Psychopharmacology	3
SLWK 747 Social Work Intervention with Children and Adolescents	3
SLWK 748 Group Methods in Social Work Practice	3
SLWK 749 Social Work Intervention in Substance Abuse	3
SLWK 755 Social Work Practice in Organizing for Social Change	3
SLWK 759 Art Therapy in Social Work Practice	3
SLWK 761 Interpersonal Violence	3
SLWK 770 International Social Work Study Abroad	3
SLWK 791 Topical Seminar	1-3
-	

Sample plan of study

Courses	Credit hours
First year, fall semester	15
SLWK 601 Human Behavior in the Social Environment I	3
SLWK 602 Policy, Community and Organizational Practice I	3
SLWK 603 Social Work and Social Justice	3
SLWK 604 Social Work Practice with Individuals, Families and	3
Groups I	
SLWK 693 Foundation Field Instruction I	3

Total graduate credit hours required (minimum)

First year, spring semester		15
SLWK 605 Social Work Practice with Individuals, Families and Groups II	3	
SLWK 606 Policy, Community and Organizational Practice II	3	
SLWK 609 Foundations of Research in Social Work Practice	3	
SLWK 610 Human Behavior in the Social Environment II	3	
SLWK 694 Foundation Field Instruction II	3	
Second year, fall semester		15
SLWK 703 Mental, Emotional and Behavioral Disorders	3	
SLWK 704 Clinical Social Work Practice I	3	
SLWK 706 Research for Clinical Social Work Practice I	3	
SLWK 793 Concentration Field Instruction	3	
Elective	3	
Second year, spring semester		15
SLWK 705 Clinical Social Work Practice II	3	
SLWK 707 Research for Clinical Social Work Practice II	3	
SLWK 710 Concentration Social Policy	3	
SLWK 794 Concentration Field Instruction	3	
Elective	3	

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Total graduate credit hours required (minimum)

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Social Work, Master of (M.S.W.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Program accreditation

60

Council on Social Work Education (M.S.W.)

Graduate program director

Melissa L. Abell, Ph.D. M.S.W. program director mlabell@vcu.edu (804) 828-2007 60

Graduate program director

E. Ayn Welleford, Ph.D. Chair, Department of Gerontology ewellefo@vcu.edu (804) 828-1565

Program websites: socialwork.vcu.edu and sahp.vcu.edu/gerontology

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Gerontology, Master of Science (M.S.)

Public Health, Master of (M.P.H.)/Social Work, Master of (M.S.W.) [combined] Social Work, Doctor of Philosophy (Ph.D.)

Social Work, Master of (M.S.W.) with a concentration in clinical practice Social Work, Master of (M.S.W.) with a concentration in administration, planning and policy practice

Social Work, Master of (M.S.W.)/Gender Violence Intervention, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/school social work practice certification [combined]

Social Work, Master of (M.S.W.)/Juris Doctor (J.D.) with the University of Richmond [combined]

Social Work, Master of (M.S.W.)/Divinity, Master of (M.Div.) from the Baptist Theological Seminary at Richmond or the Samuel DeWitt Proctor School of Theology at Virginia Union University [combined]

Apply online at graduate.admissions.vcu.edu.

The School of Social Work in cooperation with the Department of Gerontology of the School of Allied Health Professions at VCU provides students with a unique educational opportunity in social work and gerontology. Master of Social Work students interested in work with elders or in gerontological programs may earn a Certificate in Aging Studies while completing the master's degree requirements.

In order to meet the requirements of the M.S.W. degree and the Certificate in Aging Studies, students complete a total of 65 graduate credit hours. All foundation and concentration courses of the Master of Social Work Program are completed, and core courses (nine credit hours) of the Certificate in Aging Studies Program are completed. Other requirements are met by (1) completion of M.S.W. research courses in which students undertake a project focused on aging, (2) completion of second-year field instruction practicum requirements (six credit hours) in a social work setting related to aging and (3) completion of an independent study course in gerontology, which integrates research and practicum courses.

Refer to the program search function for specific admission requirements, application deadlines, program goals, student learning outcomes, degree requirements and graduation requirements for the M.S.W. and Certificate in Aging Studies degree programs.

Application process

Students must meet the admission requirements of the Master of Social Work program of the School of Social Work and of the Certificate in Aging Studies program in the Department of Gerontology. Admission into one program does not guarantee admission into the other.

Additional information may be obtained from the websites listed above or either of the following offices:

Virginia Commonwealth University School of Allied Health Professions Department of Gerontology P.O. Box 980228 Richmond, VA 23298-0228

Attention: M.S.W.-Gerontology Certificate Adviser

Virginia Commonwealth University School of Social Work P.O. Box 842027

Richmond, VA 23284-2027

Attention: M.S.W.-Gerontology Certificate Adviser

Curriculum requirements

Courses Credit hours

Students must complete the M.S.W foundation curriculum or the advanced standing format and the concentration curriculum (either clinical practice or SWAPPP), including the following social work courses and the additional following courses from the Department of Gerontology.

GRTY 601 Biological and Physiological Aging	3	
GRTY 602 Psychology of Aging	3	
GRTY 605 Social Gerontology	3	
GRTY 692 Independent Studies	2	
SLWK 706 and 707 Research for Clinical Social Work Practice I and II or SLWK 714 and 715 Research for Social Work Administration, Planning and Policy Practice I and II	6	
SLWK 793-794 Concentration Field Instruction or SLWK 795 Concentration Block Field Instruction	6	
Six credit hours of the GRTY courses will count toward your concentration electives	6	

Total number of graduate credit hours required (minimum) to complete the Certificate in Aging Studies for students in the M.S.W. program

Social Work, Master of (M.S.W.)/Divinity, Master of (M.Div.) from the Baptist Theological Seminary at Richmond or the Samuel DeWitt Proctor School of Theology at Virginia Union University [combined]

Graduate program director

Melissa L. Abell, Ph.D. M.S.W. program director mlabell@vcu.edu (804) 828-2007

Additional contact

Joseph Walsh, Ph.D. Professor, VCU School of Social Work jwalsh@vcu.edu (804) 828-0408.

Program website: socialwork.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Public Health, Master of (M.P.H.)/Social Work, Master of (M.S.W.) [combined] Social Work, Doctor of Philosophy (Ph.D.)

Social Work, Master of (M.S.W.) with a concentration in clinical practice

Social Work, Master of (M.S.W.) with a concentration in administration, planning and policy practice

Social Work, Master of (M.S.W.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Gender Violence Intervention, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/school social work practice certification [combined]

Social Work, Master of (M.S.W.)/Juris Doctor (J.D.) with the University of Richmond [combined]

Apply online at graduate.admissions.vcu.edu.

The combined Master of Social Work and Master of Divinity program is a fouryear professional degree program offered by Virginia Commonwealth University in cooperation with Richmond Theological Consortium schools that include Baptist Theological Seminary at Richmond and Samuel DeWitt Proctor School of Theology at Virginia Union University. The purpose of the dual-degree program is to prepare students for service in occupations where social work and the church's ministries intersect; to enable social workers to perform and evaluate social work practices as they relate to biblical, theological, ethical, educational and pastoral perspectives; and to equip graduates for various forms of ministry in which clinical and administrative skills in social work are critical.

This program requires four continuous years of study and leads to a Master of Social Work degree conferred by VCU and a Master of Divinity degree conferred by the chosen RTC school. Permission for part-time study must be given by the dual-degree adviser at VCU and the appropriate theological school dean of faculty. All degree requirements must be completed within seven years of matriculation. Students need to apply and be accepted both programs and may begin study at either institution following the approved curriculum plan. Or, a student may begin at either VCU or the seminary and then apply for admission to the other school during the first year of study in accordance with application deadline dates.

The M.S.W. requires 60 credit hours that do not include the required integrative seminar and one course transferred from the seminary to satisfy a three-credit hour M.S.W. elective requirement. The integrative seminar is taken in the final year of study and is co-taught by a member of the VCU School of Social Work faculty and a member of a faculty of an RTC school. The seminar enables the student to integrate theoretical, social justice, empirical, ethical and practical dimensions of social work with biblical, theological, educational and pastoral perspectives.

Refer to the program search function for specific admission requirements, application deadlines, program goals, student learning outcomes, degree requirements and graduation requirements for the M.S.W. degree program.

Application process

Prospective students apply to the VCU School of Social Work and one of the participating theological schools, must meet both sets of admission standards and must be accepted into both programs. For the M.S.W. program, refer to the "Admission to the master's degree program" section. For information about admission to an RTC Master of Divinity program, contact one of the following schools:

Baptist Theological Seminary at Richmond 3400 Brook Road Richmond, VA 23286-3446 (804) 345- 2877

Samuel DeWitt Proctor School of Theology 1500 N. Lombardy St. Richmond, VA 23220 (804) 257-5715

M.S.W. program applications can be obtained from the VCU Graduate Admissions website at www.graduate.admissions.vcu.edu.

Social Work, Master of (M.S.W.)/Gender Violence Intervention, Certificate in (Post-baccalaureate graduate certificate) [combined]

Graduate program director

Melissa L. Abell, Ph.D. M.S.W. program director mlabell@vcu.edu (804) 828-2007

Program website: socialwork.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Gender Violence Intervention, Certificate in (Post-baccalaureate graduate certificate)

Public Health, Master of (M.P.H.)/Social Work, Master of (M.S.W.) [combined] Social Work, Doctor of Philosophy (Ph.D.)

Social Work, Master of (M.S.W.) with a concentration in clinical

Social Work, Master of (M.S.W.) with a concentration in social work

administration, planning and policy practice

Social Work, Master of (M.S.W.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Nonprofit Management, Certificate in (Post-

baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/school social work practice certification [combined]

Social Work, Master of (M.S.W.)/Juris Doctor (J.D.) with the University of Richmond [combined]

Social Work, Master of (M.S.W.)/Divinity, Master of (M.Div.) from the Baptist Theological Seminary at the University of Richmond or the Samuel DeWitt Proctor School of Theology at Virginia Union University [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Social Work, Master of (M.S.W.)/Gender Violence Intervention, Certificate in (Post-baccalaureate graduate certificate) [combined]

Degree: M.S.W. and	Semester(s) of entry:	Deadline dates:	Test requirements:
	Fall	Jul 15	
Post-baccalaureate graduate certificate	Spring	Nov 15	

The combined Master of Social Work and Certificate in Gender Violence Intervention program is a collaborative effort among the L. Douglas Wilder School of Public Affairs, the School of Social Work and community advocates working in the area of sexual and domestic violence. The certificate requires a total of 18 credit hours comprising five required courses and one elective.

To enroll in the Certificate in Gender Violence Intervention simultaneously with the M.S.W., students must complete a graduate application for the certificate program and pay the required fee to the Graduate Admissions Office; however, no supporting information is required for students who are already enrolled in good standing in the M.S.W. program.

Applicants will need to complete an online admission application and select from the drop down menu "GVI Certificate." Applicants then pay the application fee and attach an essay on why they wish to be in the program. Students should also indicate on the right-hand side of the admission application that they are currently in the M.S.W. program, which will alert the admissions office that the application can be sent directly to the program chair for an admissions decision.

Please arrange for references and transcripts to be forwarded to the Wilder School graduate studies office from the School of Social Work and they will be added to the admission application. Students should indicate in the "Comments" section of the application form that they are already enrolled in the M.S.W. program.

Additional information may be obtained from Virginia Commonwealth University, School of Social Work, P.O. Box 842027, Richmond, VA 23284-2027, Attention: Elizabeth Cramer, Ph.D., [ecramer@vcu.edu; (804) 828-9027], Certificate in Gender Violence Intervention Adviser. Detailed information about the Certificate in Gender Violence Intervention is available from Sarah Jane Brubaker, Ph.D., associate dean of the Wilder School [sbrubaker@vcu.edu; (804) 827-2400]. Certificate courses can be completed after M.S.W. degree requirements have been completed as long as there is continuous enrollment. All M.S.W. students interested in the certificate should check the course schedule for changes and other course offerings.

Refer to the program search function for specific admission requirements, application deadlines, program goals, student learning outcomes, degree requirements and graduation requirements for the M.S.W. and Certificate in Gender Violence Intervention programs.

Curriculum requirements

Courses	
Required courses	15
GVPA 623 Research Methods for Government and Public Affairs*	3
GVPA 693 Internship**	3
PADM 650 Principles of Nonprofit Management***	3
SLWK 761 Interpersonal Violence	3
SOCY 635 Theorizing Gender Violence	3
Elective	3

Total graduate credit hours required (minimum) for the Certificate in Gender Violence Intervention for students in the M.S.W. program

Through a cooperative arrangement with the Wilder School, M.S.W. students may simultaneously earn this graduate certificate by completing two required courses: SOCY 635 and SLWK 761.

Notes

*GVPA 623 Research Methods for Government and Public Affairs: satisfied by SLWK 706-707 or SLWK 714-715 [clinical or social work planning, administrative and policy practice research course (3 credit hours)]

**GVPA 693 Internship: satisfied by SLWK 693-694, 695; or SLWK 793-794, 795 [a social work field practicum in an agency providing sexual or domestic violence services (3 credit hours)]

***PADM 650 Principles of Nonprofit Management: satisfied by SLWK 602-606 Social Work Policy, Planning and Organizational Practice I and II (3 credit hours)

Course schedule

SOCY 635 will be offered every fall; SLWK 761 will be offered every spring. Both courses will be offered on Tuesday from 4-6:40.

Field placements

Once students are admitted and enrolled in the certificate program, they should consult the certificate adviser when they choose their field placements to ensure that at least one placement is conducted in a setting that addresses gender violence

Social Work, Master of (M.S.W.)/Juris Doctor (J.D.) with the University of Richmond [combined]

Graduate program director

Melissa L. Abell, Ph.D. M.S.W. program director mlabell@vcu.edu (804) 828-2007

Additional contact

James Gibson, J.D.
Professor of law
University of Richmond
T.C. Williams Law School
jgibson@richmond.edu
(804) 287-6398

Program website: socialwork.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Public Health, Master of (M.P.H.)/Social Work, Master of (M.S.W.) [combined] Social Work, Doctor of Philosophy (Ph.D.)

Social Work, Master of (M.S.W.) with a concentration in clinical practice Social Work, Master of (M.S.W.) with a concentration in administration, planning and policy practice

Social Work, Master of (M.S.W.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Gender Violence Intervention, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/school social work practice certification [combined]

Social Work, Master of (M.S.W.)/Divinity, Master of (M.Div.) from the Baptist Theological Seminary at Richmond or the Samuel DeWitt Proctor School of Theology at Virginia Union University [combined]

Apply online at graduate.admissions.vcu.edu.

Through a cooperative arrangement with the University of Richmond T.C. Williams Law School, selected students in either school may pursue a combined four-year curriculum of graduate study leading to the degrees of Master of Social Work and Juris Doctor. The program is established in recognition of the role of public law in social and economic life. The dual-degree program prepares professionals versed in the values, knowledge and skills of both fields, bringing an

integrated base of competency to the resolution of human and social problems. The time normally required for completion of the integrated four-year curriculum is one academic year less than if each degree were taken separately. Elective courses will enable students to select areas in law and in social work which meet their particular interests.

Refer to the program search function for specific admission requirements, application deadlines, program goals, student learning outcomes, degree requirements and graduation requirements for the M.S.W. degree program and its concentrations.

Application process

Applicants must successfully meet the admission requirements of both schools and upon admission are assigned an adviser in each school. Students in dual-degree study may begin the course work in either school, with the sequence of courses being determined by the point of entry.

Application for admission must be made to each institution separately. Those interested should contact both the Admissions Office of the T.C. Williams Law School, University of Richmond, VA 23173 and the VCU Graduate Admissions Office at www.graduate.admissions.vcu.edu

Social Work, Master of (M.S.W.)/Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate) [combined]

Graduate program directors

Melissa L. Abell, Ph.D. Director, M.S.W. program mlabell@vcu.edu (804) 828-2007

Nancy Stutts, Ph.D. Interim program chair, Public Administration nbstutts@vcu.edu (804) 827-2164

Additional contacts

Richard F. Huff, Ph.D. Director of graduate studies, Wilder School rrhuff@vcu.edu (804) 828-6837

Program websites: socialwork.vcu.edu and wilder.vcu.edu/academic/certificate/nonprofit.html

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate) Social Work, Master of (M.S.W.) with a concentration in clinical practice Social Work, Master of (M.S.W.) with a concentration in administration, planning and policy practice

Through a cooperative arrangement with the L. Douglas Wilder School of Government and Public Affairs, Master of Social Work students pursuing the concentration in administration, planning and policy practice may simultaneously earn the post-baccalaureate graduate certificate in nonprofit management offered by the L. Douglas Wilder School of Government and Public Affairs.

Application process

To earn the Certificate in Nonprofit Management simultaneously with the M.S.W., it is necessary to complete a graduate admissions application for the certificate program; however, no supporting documents are required for students who are already enrolled in good standing in the M.S.W. degree program.

Certificate requirements for M.S.W. students

Social work students enrolled in the SWAPPP concentration are required to complete three nonprofit courses: PADM 656, PADM 659 and PADM 661.Two social work SWAPPP courses are substituted for six credit hours of the certificate's 15 credit-hour requirement. One of these courses is SLWK 712 Social Work Planning and Administrative Practice I. The second course may be SLWK 711 Strategies for Social Work Planning and Administrative Practice or SLWK 713 Social Work Planning and Administrative Practice II.

Note: M.S.W. students pursuing the clinical concentration must complete the entire 15 credit hours required for the Certificate in Nonprofit Management. Any six of the PADM nonprofit credit hours will satisfy the M.S.W. elective requirement for either concentration.

Refer to the program search function for specific admission requirements, application deadlines, program goals, student learning outcomes, degree requirements and graduation requirements for the stand-alone M.S.W. and Certificate in Nonprofit Management programs.

Curriculum requirements

Courses

PADM 656 Fund Development for the Nonprofit Sector	3
PADM 659 Financial Management for Nonprofit Organizations	3
PADM 661 Nonprofit Law, Governance and Ethics	3
SLWK 712 Social Work Planning and Administrative Practice I	3
SLWK 711 Strategies for Social Work Planning and Administrative Practic	ce or 3
SLWK 713 Social Work Planning and Administrative Practice II	

Total graduate credit hours required (minimum) for the Certificate in Nonprofit Management for students in the M.S.W. program SWAPPP concentration

Public Health, Master of (M.P.H.)/Social Work, Master of (M.S.W.) [combined]

Program accreditation

Council on Education for Public Health (M.P.H.) Council on Social Work Education (M.S.W.)

Graduate program directors

Lisa S. Anderson, M.P.H.

Director of educational programs, Master of Public Health program lsanders@vcu.edu (804) 628-2512

Sarah K. Price, Ph.D.

M.S.W./M.P.H. combined program coordinator skprice@vcu.edu (804) 828-0579

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Additional contact

Anna P. Rose

Graduate Programs Coordinator, Master of Public Health program aprose@vcu.edu (804) 828- 9785

Program websites: epidemiology.vcu.edu/education/mph/dual and socialwork.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Public Health, Master of (M.P.H.)

Social Work, Doctor of Philosophy (Ph.D.)

Social Work, Master of (M.S.W.) with a concentration in clinical practice Social Work, Master of (M.S.W.) with a concentration in administration, planning

and policy practice Social Work, Master of (M.S.W.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Gender Violence Intervention, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/school social work practice certification [combined]

Social Work, Master of (M.S.W.)/Juris Doctor (J.D.) with the University of Richmond [combined]

Social Work, Master of (M.S.W.)/Divinity, Master of (M.Div.) from the Baptist Theological Seminary at Richmond or the Samuel DeWitt Proctor School of Theology at Virginia Union University [combined]

Apply online at graduate.admissions.vcu.edu.

Through a collaborative program between the VCU School of Social Work and the Division of Epidemiology in the School of Medicine's Department of Family Medicine and Population Health, students complete a three-year full-time program of study, including summer course work, to obtain the Master of Social Work and Master of Public Health degrees. The purpose of this dual-degree program is to prepare graduates to work with individuals, families, groups, communities and/or organizations; advocate for social, health care and economic justice in a diverse and multicultural society; and promote physical and mental health across the life course.

Prospective students are required to apply separately to both programs through the Graduate Admissions Office and must meet both sets of admission requirements. Once admitted to both programs, the student is assigned an adviser from each to develop a plan of study, typically starting with the M.S.W. course work. It is preferable that students apply to both programs at the same time so that the structured dual-degree curriculum can be optimally planned. Students in one program may also apply to the second program during the first year of study.

Students are required to complete a minimum of 45 M.S.W. credit hours and a minimum of 33 M.P.H. credit hours, for a total of 78 semester credit hours. In the M.P.H. program, this includes 24 credit hours of core and required courses, a minimum six credit hours of elective courses and a minimum of three credit hours of a capstone project that examines a relevant public health topic. During the third and last year of study, dual-degree students are placed in internships through the School of Social Work that focus on public health; the internship placement is approved by both the M.P.H. program director and the director of the M.S.W. field instruction. With adviser approval, the student may develop a capstone project based on work in this public health/social work placement.

Refer to the program search function for specific admission requirements, application deadlines, program goals, student learning outcomes, degree requirements and graduation requirements for the stand-alone M.P.H. and M.S.W. degrees.

Curriculum requirements

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Courses	Credit hours
BIOS 547 Applied Data Analysis in Public Health I	3
BIOS 548 Applied Data Analysis in Public Health II	3
EPID 547 Applied Data Analysis Lab I	1.5
EPID 548 Applied Data Analysis Lab II	1.5
EPID 571 Principles of Epidemiology	3
EPID 580 Public Health Ethics	1
EPID 593 MPH Practicum	1
EPID 604 Principles of Environmental Health	3
EPID 694 MPH Capstone Project	1-3
HCPR 601 Introduction to Health Policy	3
SBHD 605 Introduction to Social and Behavioral Health	3
SLWK 601 Human Behavior in the Social Environment I	3
SLWK 602 Policy, Community and Organizational Practice I	3
SLWK 603 Social Work and Social Justice	3
SLWK 604 Social Work Practice with Individuals, Families and Groups I	3
SLWK 605 Social Work Practice with Individuals, Families and Groups II $$	3
SLWK 606 Policy, Community and Organizational Practice II	3
SLWK 609 Foundations of Research in Social Work Practice	3
SLWK 610 Human Behavior in the Social Environment II	3
SLWK 693 Foundation Field Instruction I	3
SLWK 694 Foundation Field Instruction II	3
Concentration courses	9
Students in M.S.W. clinical concentration:	
SLWK 703 Mental, Emotional and Behavioral Disorders and	
SLWK 704 Clinical Social Work Practice I and	
SLWK 705 Clinical Social Work Practice II	

Students in M.S.W. SWAPPP concentration:
SLWK 711 Strategies for Social Work Planning and Administrative
Practice and
SLWK 712 Social Work Planning and Administration Practice I and
SLWK 713 Social Work Planning and Administrative Practice II
SLWK 793 Concentration Field Instruction 3
SLWK 794 Concentration Field Instruction 3

Electives 6
Students take a minimum of six graduate credit hours of elective course work from the following courses:

BIOS 571 Clinical Trials 3 EPID 600 Introduction to Public Health 3 EPID 601 Contemporary Issues and Controversies in Public Health 3 EPID 603 Public Health Policy and Politics 3 EPID 620 Cancer Epidemiology 3 EPID 622 Maternal and Child Health 3 EPID 624 Chronic Disease Epidemiology 3 EPID 646 Epidemiology of Psychiatric and Substance Use Disorders 3 EPID 648 Behavioral Epidemiology 3 SBHD 632 Health Disparities and Social Justice 3 SBHD 636 Community-based Participatory Research 3

Total graduate credit hours required (minimum) for combined M.P.H./M.S.W.

Typical plan of study

Many students often end up taking more than the minimum number of hours required for a degree program. The total number of hours may vary depending upon the program, nature of research being conducted by a study or in the enrollment or funding status of the student. Students should refer to their program websites and talk with their graduate program directors or advisers for information about typical plans of study and registration requirements.

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

School of Medicine graduate program policies

The School of Medicine provides policies applicable to all programs administratively housed in the school. Information on master's programs is available in the Graduate Bulletin at pubapps.vcu.edu/Bulletins/about/?uid=10046&iid=30113.

Social Work, Master of (M.S.W.)/school social work practice certification [combined]

Program accreditation

Council on Social Work Education

Graduate program director

Melissa L. Abell, Ph.D. M.S.W. program director mlabell@vcu.edu (804) 828-2007

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Program website: socialwork.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Public Health, Master of (M.P.H.)/Social Work, Master of (M.S.W.) [combined] Social Work, Doctor of Philosophy (Ph.D.)

Social Work, Master of (M.S.W.) with a concentration in administration, planning and policy practice

Social Work, Master of (M.S.W.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Gender Violence Intervention, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Nonprofit Management, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Juris Doctor (J.D.) with the University of Richmond [combined]

Social Work, Master of (M.S.W.)/Divinity, Master of (M.Div.) from the Union Presbyterian Seminary, the Baptist Theological Seminary at Richmond or the Samuel DeWitt Proctor School of Theology at Virginia Union University [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Social Work, Master of (M.S.W.)/school social work practice certification [combined] Degree: Semester(s) of Deadline dates: Test requirements: M.S.W. entry: Summer (advanced Dec 1 Certification (Note: standing format) does not result in the awarding of a VCU Fall (regular standing certificate degree or Jan 16 formats - all ondiploma) campus part- and full-time and distance education)

Special requirements:

The School of Social Work requires a specific outline for the personal statement that is different from what is shown in the graduate admissions website and also requires that a checklist be submitted with application materials. Please visit the School of Social Work website for this specific information.

Through a collaborative program with the VCU School of Education, students may meet Virginia Department of Education standards for certification as school social workers in Virginia in addition to meeting requirements for the M.S.W. degree.

In order to meet the requirements of the M.S.W. and the School Social Work certification option, students complete the clinical concentration and earn a total of 63 graduate credit hours, including six credit hours of approved graduate courses in the School of Education. Students must enroll in SLWK 717 Social Work Practice in the School Setting and take two additional courses from the School of Education.

Students interested in certification in school social work should contact their advisers during the first semester of the M.S.W. program.

Additional information may be obtained from the School of Social Work website or by writing:

Virginia Commonwealth University School of Social Work P.O. 842027

Richmond, VA 23284-2027

Attention: Stephanie Odera, Certificate for School Social Work Adviser

Curriculum requirements

Courses	Credit hours
M.S.W. with a concentration in clinical practice requirements Students must complete the requirements for the M.S.W. with a concentration in clinical practice, including SLWK 717 Social Work Practice in the School Setting	57
School of Education courses	6
Choose two courses from the following options:	
Assessment of evaluation	
CLED 606 Assessment Techniques for Counselors	3
EDUS 603 Seminar in Child Growth and Development	3
EDUS 605 Child and Adolescent Development	3
SEDP/TEDU 619 Multicultural Perspectives in Education	3
SEDP 631 Classroom Management and Behavior Support for Students with Disabilities	3
Education of exceptionalities	
SEDP 501 Characteristics of Students with High Incidence Disabilities	3
(On-campus students may not take the online section of this course.)	
SEDP 532 Understanding Autism Spectrum Disorder (offered online every semester)	3
SEDP 611 Secondary Education and Transition Planning	3
SEDP 631 Classroom Management and Behavior Support for Students with Disabilities	3
SEDP/TEDU 619 Multicultural Perspectives in Education	3
School administration, law and policy	3
ADMS 600 Public School Administration	3
ADMS 606 Organizational Behavior and Change in Educational Settings	3
ADMS 607 Principles of Education Leadership	3
ADMS 611 School Law	3
ADMS 632 Administration and Supervision of Special Education	3
SEDP 630 Trends in Special Education (hybrid course offered every	3
semester and online in the summer; recommended for M.S.W. students)	
Total number of graduate credit hours required (minimum) for M.S.W. with a concentration in clinical and certification for school	63

*Note: Certification for school social work practice does not result in the awarding of a university degree or diploma.

social work practice*

Ph.D. Program

Kia J. Bentley

Director, Ph.D. Program kbentley@vcu.edu (804) 828-0453

The Ph.D. Program administers the curriculum that leads to the Doctor of Philosophy in Social Work.

Social Work, Doctor of Philosophy (Ph.D.)

Graduate program director

Humberto E. Fabelo, Ph.D., L.C.S.W. Associate professor and interim Ph.D. program director hefabelo@vcu.edu (804) 828-9033

Additional contact

Leslie Choplin, D.Ed.Min. Ph.D. program assistant lachoplin@vcu.edu (804) 828-1044

Program website: socialwork.vcu.edu

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Public Health, Master of (M.P.H.)/Social Work, Master of (M.S.W.) [combined] Social Work, Master of (M.S.W.) with a concentration in clinical practice Social Work, Master of (M.S.W.) with a concentration in administration, planning and policy practice

Social Work, Master of (M.S.W.)/Aging Studies, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Gender Violence Intervention, Certificate in (Post-baccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/Nonprofit Management, Certificate in (Postbaccalaureate graduate certificate) [combined]

Social Work, Master of (M.S.W.)/school social work practice certification [combined]

Social Work, Master of (M.S.W.)/Juris Doctor (J.D.) with the University of Richmond [combined]

Social Work, Master of (M.S.W.)/Divinity, Master of (M.Div.) from the Baptist Theological Seminary at Richmond or the Samuel DeWitt Proctor School of Theology at Virginia Union University [combined]

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree:	Semester(s) of	Deadline dates:	Test requirements:
Ph.D.	entry:		GRE-General
	Fall only	Jan 15 for early	
		consideration; Mar 1	
		for standard review	

Submit all additional application materials (personal statement, reference letters, writing sample and resume/curriculum vita) through the Graduate Admissions Office. If desired, an additional copy may be sent directly to the School of Social Work c/o Leslie Choplin, Ph.D., program assistant.

In addition to the general admission requirements of the VCU Graduate School, applicants must meet the following minimum requirements.

Applicants to the program must have an earned master's degree in social work or a closely related discipline, as well as professional experience relevant to their career goals. The relationship between the applicants' professional experiences and their career objectives should be clearly articulated in the personal statements submitted with the application materials.

Applicants whose career goals include teaching in a bachelor's- and/or master'slevel social work program should be aware that an M.S.W. degree and social work practice experience, along with the Ph.D., are often considered to be minimal job requirements. In addition, Council on Social Work Education accreditation standards currently require that individuals who want to teach practice courses, in particular, must have an M.S.W. and at least two years of post-M.S.W. practice experience.

The Graduate Record Examination taken within the past five years is required of all applicants. A combined score of 1,000 or more on the verbal and quantitative sections on the older version of the GRE or a comparable combined score on the revised GRE is expected. Applicants with combined scores of less than 1,000 may wish to retake the GRE before submitting their scores. However, applicants should also be aware that GREs are only part of the application folder and are weighed along with other aspects of the applicant's credentials.

The normal course of study is full-time. While it is possible, in some cases, to combine a limited amount of course work with outside employment, all students must complete at least one year of full-time study prior to admission to candidacy.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

VCU's Ph.D. in Social Work program is a research-oriented educational enterprise with a mission to develop scholars and leaders for education and practice in human services. Its vision is a program that builds and nurtures students' intellectual curiosity, creativity and courage, as well as their desire to "make a difference." The program is built around excellence in teaching, mentorship and socialization of students, as well as collaborative involvement in the program by its diverse faculty. Graduates of the program become active in teaching, consultation, research, practice and program evaluation, staff and program development, policy analysis and advocacy. They are employed in universities and colleges and in human service organizations and agencies at the local, state, national and international levels. In all the program's activities and events, emphasis is placed on the following areas:

- 1. The development of an intellectual community that values critical and creative thinking
- 2. The connections among the philosophy of science, theory, research and practice
- 3. The analysis and integration of knowledge and values, especially their relevance to diverse populations and issues of social justice

Student learning outcomes

- 1. A critical understanding of multiple paradigms in the philosophy of science and the implications of these for contemporary research
- Mastery of a range of research methodologies and data analysis strategies and competence in conducting independent inquiry on issues of importance to the field
- 3. Competence in the analysis and application of a wide range of social, behavioral and practice theories
- An ability to design and propose theoretically and empirically grounded models of social work intervention for coping with personal transitions and challenges, addressing social problems and promoting equity and social justice
- A critical understanding of the historical place of social work and social welfare in the evolution of social thought and cultural values
- Expertise in a chosen substantive area related to social work, including skills related to dissemination of this knowledge

 Familiarity and beginning expertise about the exchange and dissemination of professional knowledge via submissions and presentations to meetings, journals and other professional outlets

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must meet the following requirements.

A minimum of 54 graduate credit hours is required, which comprises 27 hours of core course work common for all students, 12 credit hours of electives selected individually to suit the student's course of study, three credit hours of directed research and a minimum of 12 credit hours of dissertation research. The Graduate School requirements for candidacy exams and dissertation committees apply to students in this program. Up to six credit hours may be granted for courses completed at another university. Full-time students ordinarily complete 18 to 20 credit hours per academic year.

The Ph.D. curriculum is designed for students to specialize in a substantive area and increase their relevant research skills. Students take three hours of directed research (SWKD 797) in preparation for their independent dissertation research and 12 hours of elective credit, which includes three credit hours of advanced statistics and/or research courses, and another nine credit hours of elective courses or independent study customized to their areas of interest. In addition to elective courses offered by the program, students may enroll in appropriate courses in other schools and departments at VCU with approval of their advisers. A minimum of 39 credit hours of course work, as outlined above, is required before admission to candidacy.

Curriculum requirements

Courses		Credit hours
Core curriculum		27
SWKD 701 Quantitative Research Methods and Analysis I	4	
SWKD 702 Quantitative Research Methods and Analysis II	3	
SWKD 703 Philosophical Issues in Social Work Knowledge Building	3	
SWKD 704 Multiparadigmatic Qualitative Methods and Analysis	4	
SWKD 705 Multivariate Analysis in Social Work and Human Services Research	3	
SWKD 708 Social Science Foundations for Social Work	3	
SWKD 710 Social Work, Social Welfare and Social Thought	3	
SWKD 715 Development and Evaluation of Social Work Practice Theories and Models	3	
SWKD 798 Integrative Seminar	1	
Electives		12
Advanced statistics and/or research course (Choose one of the following.)	3	
BIOS/STAT 513 Mathematical Statistics I		
BIOS/STAT 514 Mathematical Statistics II		
BIOS 553 Linear Regression		
BIOS 554 Analysis of Variance		
BIOS 571 Clinical Trials		
BIOS 572 Statistical Analysis of Biomedical Data		
BIOS 625 Categorical Data Analysis and Generalized Linear Models		
BIOS 631 Multivariate Analysis I		
BIOS 647 Survival Analysis		
BIOS 688 Applied Bayesian Biostatistics		
EPID 651 Intermediate Epidemiologic Methods for Research		
EPID 652 Advanced Epidemiologic Methods and Data Analysis		
SBHD 633 Structural Equation Modeling		
SBHD 636 Community-based Participatory Research		
STAT 523/BIOS 523 Nonparametric Statistical Methods		
STAT 546 Linear Models		
STAT 626 Complex Sampling Designs and Variance Estimation STAT 642 Design and Analysis of Experiments I		

STAT 643 Applied Linear Regression

STAT 675 Time Series Analysis I

STAT 744 Regression II

SWKD 722 Evaluation of Human Service Programs

SWKD 724 Constructivist Research

SWKD 791 Topical Seminar

URSP 621 Introduction to Geographic Information Systems

URSP 622 Community Socioeconomic Analysis Using GIS

Additional elective courses or independent study customized to student's area of interest

In addition to elective courses offered by the program, students may enroll in appropriate courses in other schools and departments at VCU with approval of their advisers. Outside elective courses may be selected from classes at the 500 level or higher in BIOS, CCTR, CMSC, CLED, CRJS, ECSE, ECON, EDUS, ENVS, EPID, GSWS, GRTY, GVPA, GRAD, HADM, HCPR, HSEP, HGEN, HUMS, INFO, IDAS, IDDS, MASC, MATX, NURS, OVPR, PHAR, PSYC, PADM, PPAD, SBHD, SLWK, SWKD, SOCY, SEDP, STAT, SYSM, TEDU AND USRP.

Research	15
SWKD 797 Directed Research	3
SWKD 898 Dissertation Research	12
	(minimum)

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Comprehensive exam/admission to candidacy

Upon completion of all required course work, students are required to take a comprehensive exam under the supervision of a comprehensive examination committee. Through the comprehensive examination, students must demonstrate the ability to integrate the whole of their educational experience by adequately addressing complex questions pertinent to the current and developing knowledge base of the human service field. Students must register for a minimum of one credit hour of independent study (SWKD 792) in the semester in which they take the comprehensive examination.

Upon successful completion of all portions of the comprehensive exam, students are approved for degree candidacy and for registration for a minimum of one credit hour of dissertation research.

If one or more portions of the examination are not passed upon the first attempt, the student receives a mark of I in the independent study course and the following semester reattempts all (or portions) of the comprehensive examination one additional time. The grade of I is changed to A upon successful completion of the comprehensive exam on the second attempt and results in approval of degree candidacy and registration for dissertation research. If a student fails to pass all portions of the comprehensive examination a second time the grade of I is changed to F in the independent study course and the student is dismissed from the program. If a student chooses not to attempt the failed portion(s) of the

comprehensive examination a second time, the grade of I is changed to F in the independent study course and the student is dismissed from the program.

Dissertation

9

54

After admission to candidacy, students proceed to propose, complete and defend their dissertations. The dissertation is completed under the supervision of a dissertation committee. A cumulative total of at least 15 credit hours of dissertation research must be completed in order to receive the Ph.D.; however, students may register for as many credits as needed/desired. Students are required to maintain continuous enrollment of at least three credit hours per semester (excluding summer) until they have attained 12 hours of dissertation credit, after which they may enroll for as few as one credit per semester. The dissertation must represent independent research and should be based on an original question or hypothesis relevant to social work. Successful defense of the dissertation, after the completion of 54 hours of course work and dissertation credits, completes the requirements for the degree.

Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements





2014-15 Graduate and Professional Programs Bulletin

VCU Life Sciences

VCU entered a new era when it implemented, as one of its highest priorities, a new university-wide matrix academic organization called VCU Life Sciences, created in response to the need to prepare students for the anticipated growth in new life sciences jobs in the coming decades. The skills identified for these jobs require highly interdisciplinary or multidisciplinary approaches, often falling between the boundaries of traditional academic disciplines. The way that the life sciences are understood and taught is likely to be fundamentally different, with increasing emphasis on systems biosciences as an important complement to more traditional, purely reductive approaches. The objective of Phase II of VCU's strategic plan specifically outlines the need to bring VCU's major academic and administrative divisions together to work on mutual initiatives that will accomplish VCU's goal of national leadership. VCU Life Sciences is a response to that objective.

Faculty

VCU Life Sciences faculty members are drawn from departments across the university. Lists of participating faculty and academic affiliations are available on the VCU Life Sciences Web site for each program.

Facilities

VCU Life Sciences comprises the resources and interests not only of the Monroe Park Campus and the VCU Medical Center, but also the Virginia BioTechnology Research Park and the Inger and Walter Rice Center for Environmental Life Sciences, a property of 342 acres overlooking the James River in Charles City County. The \$27 million Eugene P. and Lois E. Trani Center for Life Sciences houses administrative offices, the Center for Environmental Studies, state-of-theart laboratories and classrooms, and a climate-controlled greenhouse. The Center for the Study of Biological Complexity, including the Center for High Performance Computing at VCU, is housed in Grace E. Harris Hall.

VCU Life Sciences supports two university centers for its research and teaching efforts: the Center for Environmental Studies and the Center for the Study of Biological Complexity.

Administration

1000 West Cary Street P.O. Box 842030 Richmond, Virginia 23284-2030 (804) 827-5600 Fax: (804) 828-1961 www.ycu.edu/lifesci

Thomas F. Huff

Vice Provost for Life Sciences

Gregory A. Buck

Director of the B.S., B.S.-Master's and Master's Programs in Bioinformatics and Director of the Center for the Study of Biological Complexity

Herschell S. Emery

Director of Undergraduate Curricula

Gregory C. Garman

Director of the B.S., B.S.-Master's and Master's Programs in Environmental Studies and Director of the Center for Environmental Studies

Robert M. Tombes

Director of the Ph.D. Program in Integrative Life Sciences

VCU Life Sciences courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Undergraduate and graduate Bioinformatics BNFO course descriptions.

Undergraduate and graduate Environmental Studies ENVS course descriptions.

Undergraduate and graduate Environmental Studies Laboratories ENVZ course descriptions.

Undergraduate and graduate Life Sciences LFSC course descriptions.

Graduate information

Transfer credit

Graduate-level course work completed prior to matriculation into the program, including course work taken in another program at VCU or at another institution, shall be evaluated to determine whether it can be used to fulfill degree requirements of this program. There is no limit to the number of credits that can be transferred from another program at VCU as long as they have not been previously applied toward another degree. A maximum of six credit hours earned at an institution other than VCU can be accepted for transfer into the program if not previously applied toward another degree. A minimum grade of B is required for transfer of credits.

Grade requirements

Degree candidates must maintain a GPA of 3.0 or greater. GPAs shall be based on all graduate courses attempted after acceptance into the program. The academic standing of any student who receives multiple grades of C, or a grade of D or F will be reviewed for possible termination from the program.

Integrative Life Sciences, Doctor of Philosophy (Ph.D.)

Graduate program director

William B. Eggleston Jr., Ph.D. weggles@vcu.edu (804) 828-0799

Additional contact

Regina Jefferson Executive administrative assistant lrjeffer@vcu.edu (804) 827-1865

Program website: vcu.edu/lifesci/phd

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Environmental Studies, Master of (M.Envs.)

Environmental Studies, Master of (M.Envs.), accelerated Bachelor of Science in Environmental Studies (B.S.) to master's

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Degree: Ph.D.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE
	Fall (preferred)	Jan 10	
	• /		International students require TOEFL

In addition to the general admission requirements of the VCU Graduate School, the Ph.D. in Integrative Life Sciences program requires graduation from an accredited college or university or its equivalent with a degree that is preparative for graduate-level study in the life sciences. Applicants should have a minimum GPA of 3.0 on a 4.0 scale, and scores on the Graduate Record Examination should exceed the 50th percentile in each category. For international applicants, satisfactory scores from a standardized test, such as the TOEFL (above 100), must be submitted along with external evaluation of undergraduate transcripts from nondomestic educational institutions (see Graduate Admissions website for further details)

Letters of recommendation from three present or former professors, advisers or mentors qualified to evaluate the applicant's ability to engage in graduate study in the life sciences are required, as is a written statement describing the applicant's research interests, motivation, research experience, education and goals for pursuing graduate study in this particular program, and preferred research adviser(s), official transcripts from all past postsecondary educational institutions, official GRE scores, and current curriculum vita or resume. Applicants are **strongly** encouraged to contact potential research advisers prior to submitting application materials and to identify potential research advisers in their personal statements.

Students accepted into the program with a 3.4 and higher undergraduate GPA and/ or experience of success in graduate course work will be provided with a stipend and tuition and fees for the first year of matriculation. Following satisfactory progress during the first year and the availability of funds, a second year of funding (stipend, tuition and fees) is available. Preference is given to applicants with preidentified research advisers.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program mission

The Ph.D. in Integrative Life Sciences is designed for students who want to conduct research that is integrative across multiple disciplines and that takes a systems approach to emerging research questions across the many fields that comprise the life sciences. Students may opt to work with faculty members from departments across VCU campuses. The program provides the opportunity to conduct interdisciplinary research at multiple scales of study from the molecular to ecosystem levels with an emphasis on the concepts of systems biology and biological complexity.

Program goals

- Interdisciplinary knowledge and skills: The core curriculum of the ILS
 program will effectively assist students in gaining understanding of modern
 systems biology along with training in the interdisciplinary skills and
 knowledge increasingly required for doing effective research in the life
 sciences. It will also foster progressive development of a mastery of the
 current state of the research in students' areas of interest as they seek to
 identify key focus areas for their integrative research.
- 2. Research skills: The mentored research component of the program, building on the core curriculum and interdisciplinary elective course work, will foster development of an ability to synthesize this learning and identify key focus areas for integrative research. It will support students as they learn how to design, implement and interpret interdisciplinary experimental approaches that will best address their research questions.
- Communication skills: Students in the program will develop skills in both
 written and oral communication of life science knowledge, experimental
 design, results and interpretation to a variety of potential audiences.

Student learning outcomes

- Oral communication skills: The candidate will demonstrate the
 achievement of an appropriate level of oral communication skills with respect
 to the content, organization, logical flow, presentation and appropriate use of
 language incorporating the use of visual aids, as measured by rubric.
- Written communication skills: The candidate will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information including the use of figures, tables and citations, as measured by rubric.

- Experimental design: The candidate will demonstrate the achievement of an
 appropriate level of competence in the ability to appraise, modify, and/or
 create and implement experimental protocols and to design and develop
 experiments, as measured by rubric.
- 4. Problem-solving skills: The candidate will demonstrate an appropriate level of skill in the identification and selection of meaningful problems to be addressed in bioscience research, including the ability to defend said identifications and to design and develop appropriate methods to solve said problems, as measured by rubric.
- 5. Integrated knowledge: The candidate will demonstrate an appropriate level of knowledge of the life sciences and a more detailed understanding of the disciplines most pertinent to their own interdisciplinary research areas, including an appropriate familiarity with the research literature and the ability to evaluate and critique publications, as measured by rubric.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students are required to complete course work in core and elective courses and to conduct significant research. All work toward the degree must be completed within eight years of the first enrollment.

- Credit-hour requirements: Students in the program are required to earn a minimum of 64 graduate-level credit hours. At least one-half of the graduate credit hours presented for graduation must be at the 600 level or higher.
- Grade requirement: Degree applicants must achieve an overall GPA of 3.0
 (B) with a grade of C in no more than two courses. The GPA for graduation is based on all graduate courses attempted after acceptance into the program.
- 3. Transfer credit: Graduate-level VCU course work taken as a nondegree-seeking student or in a previous graduate matriculation for which a degree was never awarded may be evaluated to determine whether it can be used to fulfill degree requirements of this program in accordance with the VCU Graduate School transfer policy. A maximum of six credit hours earned at another institution can be accepted for transfer into the program if not previously applied toward another degree. A minimum grade of B is required for credit hours transferred.
- 4. Research adviser and committee: New students entering the program may be initially advised by the program director to assist with initial course selection and to provide advice concerning the program. Students should select a research adviser prior to matriculation, but no later than the end of the first semester. The research adviser may be chosen from among the many graduate faculty members associated with this program from either VCU campus.

Students are required to form a research advisory committee that is headed by the research adviser and that consists of a minimum of five members of the VCU graduate faculty. Individuals who are not graduate faculty members (i.e., individuals from another institution or industry) must apply to the dean of the Graduate School for temporary affiliate graduate faculty appointment. The significant areas of the student's research focus should be represented by the members of the research advisory committee. At least two members of the committee shall have primary appointments in departments other than that of the research adviser, with one of those members being integrally associated with the student's research to foster the interdisciplinary intent of this degree program. Students should form their committees during the first semester of study and no later than the end of the second semester of study.

5. Written and oral examinations: Before admission to degree candidacy for the Ph.D. degree, students must successfully complete a comprehensive written examination and an oral examination. The student's research advisory committee will administer both exams. Students should take the written exam upon completion of all required didactic course work, usually at the end of the second year of study. It will focus on material covered in core and selected elective courses as well as fundamental knowledge relevant to the student's research field. Upon successful completion of the written examination and submission and acceptance of a research proposal, students should take an oral examination that includes a defense of the proposed research project and other subject areas deemed appropriate by the committee. Students may retake the written and oral examinations only once. Written evaluations of the written examination, written thesis proposal and oral thesis proposal defense will be completed by research advisory committee members and provided to the chair of the research advisory

committee to discuss with the student and to the program director for program assessment.

Dissertation research: The dissertation research project should represent a significant contribution to the body of knowledge in its field and should be deemed suitable for publication in refereed journals. The emphasis of the research conducted by students in this program should be on interdisciplinary research, incorporating two or more disciplines and with a systems approach. Research projects may take advantage of the many research opportunities across the life sciences on both campuses. Projects may encompass multiple scales of study from molecular to ecosystem levels. Students shall prepare a written dissertation describing the completed research using the format approved by the Graduate School. An oral defense of the dissertation, under the direction of the research advisory committee and open to all faculty members, also is required. Written evaluations of the thesis and the oral defense of the thesis will be completed by research advisory committee members and provided to the chair of the research advisory committee to discuss with the student and to the program director for program assessment. Upon successful completion of all degree requirements, students will graduate with the Ph.D. in Integrative Life Sciences.

Curriculum requirements

A minimum total of 64 graduate credit hours is required and is distributed as follows:

Courses	Credit hours
Core courses (12 credit hours)	
LFSC 510/BIOL 545 Biological Complexity	3
LFSC 630 Integrative Life Sciences Research	2
LFSC 690 Research Seminar in Integrative Life Sciences (1 credit hour; 4 semesters)	4
Scientific integrity	1
OVPR 601 Scientific Integrity	
OVPR 602 Responsible Scientific Conduct	
OVPR 603 Responsible Conduct of Research (does not count toward 3 credit-hour restriction for Preparing Future Faculty courses)	
Technologies course (recommended options; choice depends on student's specialty)	2
ANAT 615 Techniques in Neuroscience and Cell Biology	
BNFO/BIOL 541 Laboratory in Molecular Genetics	
BNFO 650 Sequence Analysis in Biological Systems	
ENVS 602 Environmental Technology	
MICR 607 Techniques in Molecular Biology and Genetics	
MICR/BNFO 653 Advanced Molecular Genetics: Bioinformatics	

Advanced statistics, advanced mathematics or experimental design course (depending on the student's area of research) (minimum 3 credit hours)

Note: Students are expected to enter the program proficient in statistics at the introductory level, as exemplified by STAT/BIOS 543 Statistical Methods I. Students not at this level, as evidenced by prior course work, will be required to take STAT/BIOS 543 or an equivalent course.

BIOL 606 Quantitative Ecology

BIOS/STAT 523 Nonparametric Statistical Methods

BIOS 524 Biostatistical Computing

BIOS 572 Statistical Analysis of Biomedical Data

BNFO/BIOL 601 Integrated Bioinformatics

ENVS 603 Environmental Research Methods

LFSC 610 Analytical Methods in Biocomplexity Analysis

MATH 591 Topics in Mathematics (mathematical biology)

STAT/BIOS 544 Statistical Methods II

STAT 623 Discrete Multivariate Analysis

STAT 643 Applied Linear Regression

Other courses based on approval of research advisory committee

Elective courses (based on research interest and approved by research advisory committee) (minimum 9 credit hours)

9

500-level or higher courses in ANAT, ANTH, BIOC, BIOL, BIOS, BNFO, CHEM, CLSE, CMSC, EDUS, EGRB, EPID, FRSC, HGEN, MATH, MEDC, MEDP, MICR, NANO, NEUS, OPER, PATH, PCEU, PHAR, PHIS, PHTX, PSCI, PSYC or STAT

Note: Only 3 credits of Preparing Future Faculty (GRAD) courses will be accepted toward the 9 credit hours of electives (exclusive of OVPR Responsible Conduct of Research)

Directed research (minimum 40 credit hours)

40

LFSC 697 Directed Research in Integrative Life Sciences

Total number of graduate credit hours required (minimum) 6

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

3

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Center for Environmental Studies

The undergraduate and graduate programs in environmental studies are interdisciplinary in nature, exposing students to the critical links between the areas of environmental life sciences, technology and policy.

At the undergraduate level, students gain the necessary skills for entry-level field and research positions. Class lectures and guest speakers introduce the importance of policy-making and awareness in the environmental field, while laboratory and internship experiences provide a working knowledge of the latest in environmental technology and field practices.

The graduate programs provide two options for students to further their studies in the environmental life sciences. The Master of Science in Environmental Studies is a thesis-based program designed for those individuals interested pursuing research in the environmental field. The Master of Environmental Studies (the non-thesis program) is a terminal, two-year professional degree for individuals working in the private/public sector of the environmental field.

Administration

Gregory C. Garman

Director of the B.S., B.S.-Master's Programs in Environmental Studies and Director of the Center for Environmental Studies

www.vcu.edu/cesweb

Environmental studies courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow these links to environmental studies (ENVS) courses or the (ENVZ) laboratories

Follow this link to life sciences (LFSC) courses.

Environmental Studies, Master of (M.Envs.)

Graduate program director

J. Clifford Fox, J.D., Ph.D.

Associate Director, Center for Environmental Studies cfox@vcu.edu

(804) 828-7202

Program website: vcu.edu/cesweb

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Environmental Studies, Master of Science (M.S.)

Environmental Studies, Master of (M.Envs.), accelerated Bachelor of Science in

Environmental Studies (B.S.) to master's

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Environmental Studies, Master of (M.Envs.)			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.Envs.	entry:		GRE
(non-thesis degree)	Fall	Jul 1	
	Spring	Dec 1	TOEFL for
	Summer	May 1	international students

Special requirements:

For students seeking fall admission, preference is given to applications received before March 15. Students wishing to be considered for funding must apply by April 1. See program website.

In addition to the general admission requirements of the VCU Graduate School, applicants must have successfully completed undergraduate training and hold a bachelor's degree from an accredited institution reflecting ability to perform at the graduate level.

While qualified students from any baccalaureate program will be considered for admission to the M.S., due to the program goal of linking science and policy, students with narrow training in one field or the other may be required to complete some basic education in the alternate field prior to full admission.

Students admitted to the program are generally drawn from applicants with a minimum undergraduate GPA of 3.0 (on a 4.0 scale or equivalent) and satisfactory scores on a current standardized graduate admissions test (normally the GRE). Applicants holding an undergraduate degree from recognized foreign institutions should display an acceptable level of English proficiency by achieving a minimum score of 600 on the TOEFL paper-based examination or 100 on the Internet-based examination.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty

of the university through their elected representatives to the University Graduate

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The goal of the Master of Environmental Studies (M.Envs.) degree program is to provide an interdisciplinary master's degree program in environmental studies that emphasizes the critical links between environmental life sciences and public policy. This goal necessitates training that crosses disciplinary boundaries. Through a program of study combining environmental science, environmental technology and environmental policy, the successful graduate will gain a range of skills designed to facilitate a science-based understanding of the natural world and human interactions with it. The M.Envs. is specifically designed to provide students with professional training to prepare them for careers involving leadership in environmental science and policy.

Student learning outcomes

- Graduates will be able to use emerging environmental technologies and apply them under real-world conditions.
- Graduates will be able to conduct objective research and/or interpret research findings, and apply scientific concepts and information to the decisionmaking process for environmental regulations and policies.
- Graduates will be able to effectively bridge the realms of policy and science on critical environmental issues and be able to make significant contributions in an interdisciplinary professional and academic environment.
- Graduates will possess a sophisticated and practical understanding of methods for collection, analysis, presentation and critical interpretation of environmental data using appropriate statistical and quantitative tools.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must:

- Complete a minimum of 33 graduate credit hours, approved by the program director, with an overall minimum GPA of 3.0 on all graduate course work attempted after acceptance into the program (At least one-half of required course work must be at the 600 level or higher.)
- 2. Complete three required core courses (9 credit hours)
- 3. Complete an additional 21 credit hours of approved graduate electives
- Complete 3 credit hours of practical experience (either 3 credit hours of internship or independent study)
- Successfully complete a comprehensive oral examination administered by three faculty members

Curriculum requirements

Courses	Credit hours
Core requirements	9
ENVS 601 Survey in Environmental Studies	3
ENVS 603 Environmental Research Methods	3
STAT 543 Statistical Methods I (or equivalent)	3

Practical experience (Students may not apply more than a total of 3 credits of ENVS 692 and/or ENVS 693 to the degree without prior approval of the major adviser and program director.)

ENVS 692 Independent Study

Electives (Courses must represent at least two of the disciplines below. Listed courses are options and are not comprehensive of all electives. Other electives may be allowed with prior permission of major adviser and program director.)

ENVS 693 Internship in Environmental Studies

Note: Students may not apply more than 3 credit hours (total) of ENVS 692 and/or ENVS 693 to the degree without prior approval of the major adviser and program director.

Environmental studies

ENVS 550 Ecological Risk Assessment	3
ENVS/ANTH 556 Historical and Cultural Landscapes	3
ENVS 692 Independent Study	1-3
ENVS 693 Internship in Environmental Studies	1-3
Environmental policy and administration	
ENVS/PADM 628 Environmental Policy and Administration	3
ENVS 660 Virginia Environmental Law	3
PADM 601 Principles of Public Administration	3
URSP 650 Natural Resources and Environmental Planning	3
URSP 652 Environmental Analysis	3
Environmental science/health	
BIOL 510 Conservation Biology	3
BIOL 514 Stream Ecology	4
BIOL/ENVS 532 Water Pollution Biology	3
BIOL 591 Special Topics in Biology (applied and environmental microbiology)	1-4
ENVS 650 Pesticides, Health and the Environment	3
ENVS 655 Hydrogeology	3
ENVS 670 Pollution Physiology	3
Environmental technology	
ENVS/URSP/GEOG 521 Introduction to Geographic Information	3
Systems	
ENVS 602 Environmental Technology	3
ENVS/URSP/GEOG 654 Environmental Remote Sensing	3

Total number of graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final

of geographic information systems)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

ENVS 691 Topics in Environmental Studies (environmental applications 3

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

3

1-3

3

21

33

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student handbook: vcu.edu/cesweb/grad resources.html

Environmental Studies, Master of (M.Envs.), accelerated Bachelor of Science in Environmental Studies (B.S.) to master's

Graduate program director

J. Clifford Fox, J.D., Ph.D. Associate Director, Center for Environmental Studies

Associate Director, Center for Environmental studies cfox@vcu.edu

(804) 828-7202

Program website: vcu.edu/cesweb

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Environmental Studies, Master of (M.Envs.) Environmental Studies, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Environmental Studies, Master of (M.Envs.), accelerated Bachelor of Science in Environmental Studies (B.S.) to master's			
Degree: M.Envs. (non-thesis degree)	Semester(s) of entry: Fall Spring Summer	Deadline dates:	Test requirements: International students require TOEFL
Special requiremen See program website			

The accelerated Bachelor of Science and Master of Environmental Studies is restricted to students who have demonstrated strong interest and success in environmental studies. The minimum qualification for admittance to the program is the completion of 90 undergraduate credit hours with an overall GPA of 3.0 and a GPA of 3.3 in the environmental studies major concentration. Students also are required to provide a letter of recommendation from at least one of their major professors attesting to their interest and competence in environmental studies.

Students may apply to the accelerated program after completing a total of 70 credit hours, either by transfer or VCU completion. Students begin accelerated graduate classes after completing a total of 90 undergraduate credits, either by transfer or VCU completion.

Special admission requirements

Students failing to meet the minimum standards for admission to the accelerated program due to exceptional circumstances will be allowed to appeal to the environmental studies graduate admissions committee for special admission. However, under no circumstances will students who fail to meet the graduate student standards of performance outlined in the Graduate Bulletin be admitted to the accelerated program.

The environmental studies undergraduate and graduate studies program directors jointly will provide guidance for students who are accepted into the accelerated program. This guidance will include a review of all of the program degree requirements, both graduate and undergraduate, and the development of an appropriate plan of study.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

> General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The goal of the Master of Environmental Studies (M.Envs.) degree program is to provide an interdisciplinary master's degree program in environmental studies that emphasizes the critical links between environmental life sciences and public policy. This goal necessitates training that crosses disciplinary boundaries. Through a program of study combining environmental science, environmental technology and environmental policy, the successful graduate will gain a range of skills designed to facilitate a science-based understanding of the natural world and human interactions with it. The M.Envs. is specifically designed to provide students with professional training to prepare them for careers involving leadership in environmental science and policy.

Student learning outcomes

- Graduates will be able to use emerging environmental technologies and apply them under real-world conditions.
- Graduates will be able to conduct objective research and/or interpret research findings, and apply scientific concepts and information to the decisionmaking process for environmental regulations and policies.
- Graduates will be able to effectively bridge the realms of policy and science on critical environmental issues and be able to make significant contributions in an interdisciplinary professional and academic environment.
- Graduates will possess a sophisticated and practical understanding of methods for collection, analysis, presentation and critical interpretation of environmental data using appropriate statistical and quantitative tools.

Degree requirements

The requirements for the B.S. in Environmental Studies and the Master of Environmental Studies (M.Envs.) are not reduced by the accelerated program. However, 12 credit hours of graduate course work may be applied toward both degrees for qualified students in the program.

Refer to the VCU Undergraduate Bulletin for a complete listing of requirements for the B.S. in Environmental Studies degree program. The following table outlines the undergraduate requirements that would be fulfilled by the corresponding graduate courses. Where special circumstances exist (e.g., student has already completed a fulfilled course prior to applying to the accelerated program), another undergraduate requirement may be fulfilled by the listed graduate course with the approval of both the graduate and undergraduate program directors.

Shared graduate course	Undergraduate course requirement	Credit hours
ENVS 550 Ecological Risk Assessment or ENVS 670 Pollution Physiology	ENVS 330 Environmental Pollution	3
ENVS 601 Survey in Environmental Studies	SOCY/POLI 320 Research Methods in the Social Sciences	3
ENVS elective*	ENVS elective	3
STAT 543 Statistical Methods I	STAT 314 Applications of Statistics	3
Total number of shared gr	aduate credit hours	12
*Approved gra	duate electives	
ENVS/URSP/GEOG 521 Introduction to Systems	Geographic Information	3
ENVS 591 or ENVS 691 Topics in Envir	onmental Studies	1-3
ENVS 602 Environmental Technology		3
ENVS/PADM 628 Environmental Policy	and Administration	3

Following the completion of the undergraduate requirements, the student may complete the master's degree within one year. The recommended approach would be to complete the hands-on component of the degree (internship or independent study) during the summer following completion of the undergraduate requirements. All additional requirements could then be completed in two ninehour semesters. However, students may also opt to postpone the hands-on component of the degree until the summer following the completion of all graduate course work.

In addition to general VCU Graduate School graduation requirements, students

- Complete a minimum of 33 graduate credit hours, approved by the program director, with an overall minimum GPA of 3.0 on all graduate course work attempted after acceptance into the program (At least one-half of required course work must be at the 600 level or higher.)
- Complete three required core courses (9 credit hours)
- 3. Complete an additional 21 credit hours of approved graduate electives
- Complete 3 credit hours of practical experience (either 3 credit hours of internship or independent study)
- Successfully complete a comprehensive oral examination administered by three faculty members

Curriculum requirements	
Courses	Credit hours
Core requirements	9
ENVS 601 Survey in Environmental Studies	3
ENVS 603 Environmental Research Methods	3
STAT 543 Statistical Methods I (or equivalent)	3
Practical experience (Students may not apply more than a total of 3 credits of ENVS 692 and/or ENVS 693 to the degree without prior approval of the major adviser and program director.)	3
ENVS 692 Independent Study	1-3
ENVS 693 Internship in Environmental Studies	1-3
Electives (21 credit hours from at least two of the disciplines below. Listed courses are options and are not comprehensive of all electives. Other electives may be allowed with prior permission of major adviser and program director.)	21
Environmental studies	
ENVS 550 Ecological Risk Assessment	3

ENVS/ANTH 556 Historical and Cultural Landscapes	3
ENVS 692 Independent Study	1-3
ENVS 693 Internship in Environmental Studies	1-3
Environmental policy and administration	
ENVS/PADM 628 Environmental Policy and Administration	3
ENVS/GVPA 640 River Policy	3
ENVS 660 Virginia Environmental Law	3
PADM 601 Principles of Public Administration	3
URSP 650 Natural Resources and Environmental Planning	3
URSP 652 Environmental Analysis	3
Environmental science/health	
BIOL 510 Conservation Biology	3
BIOL 514 Stream Ecology	4
BIOL/ENVS 532 Water Pollution Biology	3
BIOL 591 Special Topics in Biology (applied and environmental	3 1-4
microbiology)	1-4
ENVS 650 Pesticides, Health and the Environment	3
ENVS 655 Hydrogeology	3
ENVS 670 Pollution Physiology	3
Environmental technology	
ENVS/URSP/GEOG 521 Introduction to Geographic Information	3
Systems	3
ENVS 602 Environmental Technology	3
ENVS/URSP/GEOG 654 Environmental Remote Sensing	3
ENVS 691 Topics in Environmental Studies (environmental applications	3
of geographic information systems)	
Total number of graduate credit hours required (minimum)	33

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student handbook: vcu.edu/cesweb/grad_resources.html

Environmental Studies, Master of Science (M.S.)

Graduate program director

J. Clifford Fox, J.D., Ph.D.

Associate Director, Center for Environmental Studies

cfox@vcu.edu (804) 828-7202

Program website: vcu.edu/cesweb

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Environmental Studies, Master of (M.Envs.)

Environmental Studies, Master of (M.Envs.), accelerated Bachelor of Science in Environmental Studies (B.S.) to master's

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Environmental Studies, Master of Science (M.S.)		
Semester(s) of entry:	Deadline dates:	Test requirements: GRE
Fall	Jul 1	
Spring	Dec 1	International students
Summer	May 1	require TOEFL
	Semester(s) of entry: Fall Spring	Semester(s) of Deadline dates: entry: Fall Jul 1 Spring Dec 1

Special requirements:

For students seeking fall admission, preference is given to applications received before March 15. Students wishing to be considered for funding must apply by April 1. See program website.

In addition to the general admission requirements of the VCU Graduate School, applicants must have successfully completed undergraduate training and hold a bachelor's degree from an accredited institution reflecting ability to perform at the graduate level.

While qualified students from any baccalaureate program will be considered for admission to the Master of Science in Environmental Studies (M.S.) program, due to the program goal of linking science and policy, students with narrow training in one field or the other may be required to complete some basic education in the alternate field prior to full admission. Moreover, admission to the M.S. program requires a sponsoring faculty adviser, who will function as a thesis adviser for the admitted student. Students without such sponsorship will be considered for admission to the Master of Environmental Studies (M.Envs.) degree program. If an appropriate adviser is identified following admission, the student's program may be changed to the M.S. program.

Students admitted to the program are generally drawn from applicants with a minimum undergraduate GPA of 3.0 (on a 4.0 scale or equivalent) and satisfactory scores on a current standardized graduate admissions test (normally the GRE). Applicants holding an undergraduate degree from recognized foreign institutions should display an acceptable level of English proficiency by achieving a minimum score of 600 on the TOEFL paper-based examination or 100 on the Internet-based examination.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The goal of the M.S. in Environmental Studies is to provide an interdisciplinary master's degree program in environmental studies that emphasizes the critical links between environmental life sciences and public policy. This goal necessitates training that crosses disciplinary boundaries. Through a program of study combining environmental science, environmental technology and environmental policy, the successful graduate will gain a range of skills designed to facilitate a science-based understanding of the natural world and human interactions with it. The M.S. is specifically designed to prepare students for careers involving science and policy research through the completion of a culminating thesis project.

Student learning outcomes

- Graduates will be able to use emerging environmental technologies and apply them under real-world conditions.
- Graduates will be able to conduct objective research and/or interpret research findings, and apply scientific concepts and information to the decisionmaking process for environmental regulations and policies.
- Graduates will be able to effectively bridge the realms of policy and science on critical environmental issues and be able to make significant contributions in an interdisciplinary professional and academic environment.
- Graduates will possess a sophisticated and practical understanding of methods for collection, analysis, presentation and critical interpretation of environmental data using appropriate statistical and quantitative tools.

Degree requirements

In addition to general VCU Graduate School graduation requirements, students must:

- Complete a minimum of 33 graduate credit hours, approved by the program director, with an overall minimum GPA of 3.0 on all graduate course work attempted after acceptance into the program (At least one-half of required course work must be at the 600 level or higher).
- 2. Complete three required core courses (9 credit hours)
- 3. Complete an additional 18 credit hours of approved graduate electives
- Develop a research proposal approved by a committee of three faculty members
- Qualify for degree candidacy based upon satisfactory completion of the above requirements
- Complete the proposed research culminating in a publication-quality thesis (6 research credit hours)
- 7. Successfully defend the research thesis

Curriculum requirements

Courses	
Core requirements	9
ENVS 601 Survey in Environmental Studies	3
ENVS 603 Environmental Research Methods	3
STAT 543 Statistical Methods I (or equivalent)	3
Thesis (maximum of 6 credit hours; M.S. degree only)	6
ENVS 697 Research	3
ENVS 698 Thesis	3
Electives (Courses must represent at least two of the disciplines below. Listed courses are options and are not comprehensive of all electives.	18

Other electives may be allowed with prior permission of the major adviser and program director.)

Note: Students may not apply more than 3 credit hours (total) of ENVS 692 and/or ENVS 693 to the degree without prior approval of the major adviser and program director.

Environmental studies

Environmental studies	
ENVS 550 Ecological Risk Assessment	3
ENVS/ANTH 556 Historical and Cultural Landscapes	3
ENVS 692 Independent Study	1-3
ENVS 693 Internship in Environmental Studies	1-3
Environmental policy and administration	
ENVS/PADM 628 Environmental Policy and Administration	3
ENVS/GVPA 640 River Policy	3
ENVS 660 Virginia Environmental Law	3
PADM 601 Principles of Public Administration	3
URSP 650 Natural Resources and Environmental Planning	3
URSP 652 Environmental Analysis	3
Environmental science/health	
BIOL 510 Conservation Biology	3
BIOL 514 Stream Ecology	4
BIOL/ENVS 532 Water Pollution Biology	3
BIOL 591 Special Topics in Biology (applied and environmental microbiology)	1-4
ENVS 650 Pesticides, Health and the Environment	3
ENVS 655 Hydrogeology	3
ENVS 670 Pollution Physiology	3
Environmental technology	
ENVS/URSP/GEOG 521 Introduction to Geographic Information Systems	3
ENVS 602 Environmental Technology	3
ENVS/URSP/GEOG 654 Environmental Remote Sensing	3
ENVS 691 Topics in Environmental Studies (environmental applications of geographic information systems)	3

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Total number of graduate credit hours required (minimum)

33

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Other information

Student handbook: vcu.edu/cesweb/grad resources.html

Center for the Study of Biological Complexity

The Center for the Study of Biological Complexity is a new multidisciplinary focus of research and scholarly activity within VCU Life Sciences. The mission of the center is to apply the principles of complexity to contemporary biological problems in all aspects of research and scholarly activity, supporting research in integrative molecular, cellular and developmental biology.

Administration

Gregory A. Buck

Director of the B.S., B.S.-Master's and Master's in Bioinformatics and Director of the Center for the Study of Biological Complexity

www.vcu.edu/csbc

Bioinformatics courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to bioinformatics (BNFO) courses.

Follow this link to life sciences (LFSC) courses.

Bioinformatics, Master of (M.Bin.)

Graduate program director

Gregory A. Buck, Ph.D.

Director, Center for the Study of Biological Complexity gabuck@vcu.edu

(804) 827-0026

Additional contact

Allison A. Johnson, Ph.D.

Assistant director, Center for the Study of Biological Complexity aaiohnson@vcu.edu

(804) 828-6782

Program website: vcu.edu/csbc/bioinformatics/psm

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Bioinformatics, Master of (M.Bin.), accelerated Bachelor of Science in

Bioinformatics (B.S.) to master's

Bioinformatics, Master of Science (M.S.)

Bioinformatics, Master of Sciences (M.S.), accelerated Bachelor of Science in

Bioinformatics (B.S.) to master's

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Bioinformatics	Bioinformatics, Master of (M.Bin.)		
Degree: M.Bin.	Semester(s) of entry:	Deadline dates:	Test requirements: GRE
	Fall	Jul 1	
	Spring	Nov 15	
	Summer	May 1	

Special requirements:

International students requiring temporary U.S. visas should apply by April 1 for fall admission, Oct. 1 for spring admission or Feb. 1 for summer admission.

In addition to the general admission requirements of the VCU Graduate School, applicants are encouraged to include in their personal statements, and request that their referees also discuss, one or more examples of creative and analytical contributions they have made to a recent research project (preferred) or to a challenging course assignment.

Because of the interdisciplinary nature of bioinformatics, applications are welcomed from students with various academic backgrounds, such as biology, biotechnology, molecular biology, computer science, mathematics or statistics. Our program provides "bridge curricula" to strengthen students' preparation for graduate study in bioinformatics.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

Established and administered by the VCU Center for the Study of Biological Complexity, the Master of Bioinformatics (M.Bin.) degree program provides a "professional science master's" option for students desiring maximally efficient graduate training toward a career in industry or elsewhere. Students enter the program from a variety of academic backgrounds (biology, chemistry, computer science, mathematics/statistics, etc.), assisted by flexible "bridge curricula" designed to help them meet program prerequisites. This P.S.M. program is expected to attract capable students who might otherwise not undertake graduate training. The program replaces thesis research with a summer-long professional externship and associated training. Students will have an effective exposure to the biotech industry and other career options and to real-life applications of their learning.

The Master of Bioinformatics degree program will prepare students to:

Synthesize and apply interdisciplinary subject matter: The M.Bin. degree
program seeks to provide students with the skills and knowledge required to
advance into Ph.D. training programs or research positions. The program
provides a framework for the progressive development of a mastery of the
interdisciplinary subject matter pertinent to bioinformatics and an ability to
synthesize this information and apply it to key areas of investigation and
experimentation in bioinformatics.

- 2. Design, implement and interpret experimental approaches: The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches.
- **Develop communication skills:** In addition, the program will develop skills in oral and written communication of interdisciplinary science concepts, experimental design, results and interpretation.

Student learning outcomes

- 1. Oral communication skills: The candidate will demonstrate the achievement of an appropriate level of oral communication skills with respect to the content, organization, logical flow, presentation and appropriate use of language incorporating the use of visual aids, as measured by rubric.
- Written communication skills: The candidate will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information, including the use of figures, tables and citations, as measured by rubric.
- **Experimental design competency:** The candidate will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify, and/or create and implement bioinformatics experimental protocols and to design and develop experiments, as measured by rubric.
- Problem-solving skills: The candidate will demonstrate an appropriate level of ability to analyze scientific problems including pertinent datasets and design and develop appropriate methods to solve said problems, as measured
- Integrated knowledge of bioinformatics: The candidate will demonstrate an appropriate level of knowledge of fundamentals of molecular biology, computational science, statistics and a more detailed understanding of an individual area of internship research, including an appropriate familiarity with the research literature, as measured by rubric.

Degree requirements

Prerequisites and bridge curricula for master's programs

While an ideal preparation for the bioinformatics master's programs would include substantial work in molecular biology, computer science, mathematics and statistics, the program has been designed to provide "bridge curricula" to accommodate academically strong students with majors in any one of these or related disciplines. These students would develop with the assistance of their advisers a "bridge curriculum" of largely undergraduate courses to meet the prerequisites for the program and prepare them for graduate-level work.

Program prerequisites are listed below. In general, students will not need to address the set corresponding to their undergraduate majors, but will usually need to address the other two sets. It is expected that all bridge course work will be completed during the first year. While bridge courses may be completed prior to initiating the graduate program, this is not required, and most students are able, through advising, to complete bridge courses alongside graduate course work during the first year of the program.

- Biology/genomic prerequisites: an introductory knowledge of biochemistry and molecular biology, one semester of organic chemistry (e.g. CHEM 301), cell biology (e.g. BIOL 218) and Essentials of Molecular Biology in Bioinformatics (two-credit module: BNFO 507)
- 2. Computational science prerequisites: an introductory knowledge of discrete mathematics (e.g. MATH 211) and an introductory knowledge of computer science, including at least one general computer programming language, met by taking structured programming (e.g. CMSC 255) and data structures and advanced programming (e.g. CMSC 256)
- Quantitative/statistical prerequisites: an introductory knowledge of mathematics/statistics, met by taking calculus with analytic geometry I (e.g. MATH 201) and Introduction to Statistical Computing (STAT 321) or Applied Statistics for Engineers and Scientists (STAT 541)

Bioinformatics externship

In addition to general VCU Graduate School graduation requirements, students enrolled in the M.Bin. degree program complete a 10- to 12-week full-time externship at an industrial, government or academic site, usually during the summer between the first and second years of the bioinformatics program. In preparation for this externship, students will enroll in BNFO 620 Bioinformatics Practicum in the semester preceding their externships. Under the supervision of their major advisers and Graduate Advisory Committee, the external supervisor, and the coordinator of the bioinformatics practicum course, each student must develop and write a short proposal outlining the plans for the externship. The project must be approved by the student's GAC, based on a short (10-page) paper submitted by the student. This paper will include background on the project, including a review of the literature, the purpose, specific aims and rationale of the project, a statement about the specific hypothesis to be investigated, and proposed methods and statistical analyses. Research projects will be based on ongoing research in the laboratories of the participating external advisers. Students in the program may perform research on a broad range of subjects, from molecules to ecosystems, encompassing the field of bioinformatics.

In the semester following the externship experience, M.Bin. students shall prepare written papers describing the completed research performed during their externships following the format of the Graduate School's Thesis and Dissertation Manual. An oral defense, consisting of a public presentation of the paper and a committee meeting to discuss the results, under the direction of the GAC but open to all faculty members and the adviser of the externship, shall be scheduled to examine the student's underlying fundamental knowledge of the disciplines encompassed by the student's research. Announcement of the oral defense, including the candidate's name, project title, and the day, place and time of the defense, shall be made at least 10 working days in advance of the defense.

Courses

Curriculum requirements

Courses	hours
Core	22
BNFO 501 Introduction to Physical Implementation of Databases	1
BNFO/BIOL 540 Fundamentals of Molecular Genetics	3
BNFO 600 Basic Scripting Languages	2
BNFO/BIOL 601 Integrated Bioinformatics	3
BNFO 620 Bioinformatics Practicum	3
BNFO 621 Business and Entrepreneurship Essentials for Life Scientists	3
BNFO 690 Seminars in Bioinformatics	1
BNFO 700 Externship in Bioinformatics	2
CMSC 508 Database Theory	3
OVPR 601 Scientific Integrity	1
Recommended electives	12
BIOS 567 Statistical Methods for High-throughput Genomics Data	I 3
BNFO/BIOL 541 Laboratory in Molecular Genetics	2
BNFO 591 Special Topics in Bioinformatics	variable
BNFO 592 Independent Study	variable
BNFO 637 Networks Biology	3
BNFO/MICR 653 Advanced Molecular Genetics: Bioinformatics	3
BNFO 691 Special Topics in Bioinformatics	variable
BNFO 691 Special Topics in Bioinformatics (Genomics and Phylogenetics)	3
BNFO 692 Independent Study	variable
CLSE 562 Advanced Systems Biology Engineering	3
CMSC 501 Advanced Algorithms	3
MATH 580 Methods of Applied Mathematics for the Life Sciences Discrete	: 3
MATH 581 Methods of Applied Mathematics for the Life Sciences ODE	: 3
MATH 582 Methods of Applied Mathematics for the Life Sciences PDE	: 3
PHYS 591 Topics in Physics (modeling, computing and biocomplexity)	3
Total graduate credit hours required (minimum)	34

Credit

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Bioinformatics, Master of (M.Bin.), accelerated Bachelor of Science in Bioinformatics (B.S.) to master's

Graduate program director

Gregory A. Buck, Ph.D. Director, Center for the Study of Biological Complexity gabuck@vcu.edu (804) 827-0026

Additional contact

Allison A. Johnson, Ph.D. Assistant director, Center for the Study of Biological Complexity aajohnson@vcu.edu (804) 828-6782

Program website: vcu.edu/csbc/bioinformatics/bachelormaster

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Bioinformatics, Master of (M.Bin.)

Bioinformatics, Master of Science (M.S.)

Bioinformatics, Master of Science (M.S.), accelerated Bachelor of Science in

Bioinformatics (B.S.) to master's

Apply online at graduate.admissions.vcu.edu.

Admission requirements

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Bioinformatics, Master of (M.Bin.), accelerated Bachelor of Science in Bioinformatics (B.S.) to master's				
Degree:	Semester(s) of	Deadline dates:	Test requirements:	
M.Bin.	entry:		GRE	
(non-thesis degree)	Fall	Jul 1		
	Spring	Nov 15		
	Summer	May 1		

Special requirements:

Applicants must have junior or senior status in VCU's Bachelor of Science (B.S.) in Bioinformatics program and should discuss their interests with the bioinformatics coordinator during the junior year in order to plan the graduate courses to be taken during the senior year and shared between the two degrees.

In addition to the general admission requirements of the VCU Graduate School, applicants are encouraged to include in their personal statements, and to request that their referees also discuss, one or more examples of creative and analytical contributions they have made to a recent research project (preferred) or to a challenging course assignment.

The accelerated bachelor's to master's program in bioinformatics permits selected students majoring in bioinformatics to earn the bachelor's and master's degrees in a minimum of five years by taking certain graduate-level courses during the senior year of the undergraduate program. The program is restricted to students with strong credentials and a clear interest in a career in the field of bioinformatics.

In order to be admitted into the program, a student must be a VCU bioinformatics major, must have completed 90 undergraduate credit hours with an overall GPA of 3.0, including a substantial amount of collateral and core course work within the major and evidence of strong academic achievement. An application must be submitted to Graduate Admissions. Students also are required to provide at least two letters of recommendation from their major professors attesting to their interest and competence in bioinformatics. Most students will be able to initiate the application process during the second semester of the junior year.

Following acceptance into the accelerated program, students must continue to meet the requirements stated above throughout the senior year, as well as the graduate standards of performance specified in this bulletin, in order to be awarded formal acceptance into the graduate program, which typically takes place just prior to the fall semester of the fifth year.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

Established and administered by the VCU Center for the Study of Biological Complexity, the Master of Bioinformatics (M.Bin.) degree program provides a "professional science master's" option for students desiring maximally efficient graduate training toward a career in industry or elsewhere. Students enter the program from a variety of academic backgrounds (biology, chemistry, computer science, mathematics/statistics, etc.), assisted by flexible "bridge curricula" designed to help them meet program prerequisites. This P.S.M. program is expected to attract capable students who might otherwise not undertake graduate training. The program replaces thesis research with a summer-long professional externship and associated training. Students will have an effective exposure to the biotech industry and other career options and to real-life applications of their learning.

The Master of Bioinformatics degree program will prepare students to:

Synthesize and apply interdisciplinary subject matter: The M.Bin. degree
program seeks to provide students with the skills and knowledge required to
advance into Ph.D. training programs or research positions. The program
provides a framework for the progressive development of a mastery of the
interdisciplinary subject matter pertinent to bioinformatics and an ability to
synthesize this information and apply it to key areas of investigation and
experimentation in bioinformatics.

- Design, implement and interpret experimental approaches: The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches.
- Develop communication skills: In addition, the program will develop skills in oral and written communication of interdisciplinary science concepts, experimental design, results and interpretation.

Student learning outcomes

- Oral communication skills: The candidate will demonstrate the
 achievement of an appropriate level of oral communication skills with respect
 to the content, organization, logical flow, presentation and appropriate use of
 language incorporating the use of visual aids, as measured by rubric.
- Written communication skills: The candidate will demonstrate the
 achievement of an appropriate level of written communication skill with
 respect to grammar, syntax, spelling and use of vocabulary to effectively
 present information, including the use of figures, tables and citations, as
 measured by rubric.
- 3. Experimental design competency: The candidate will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify, and/or create and implement bioinformatics experimental protocols and to design and develop experiments, as measured by rubric.
- Problem-solving skills: The candidate will demonstrate an appropriate level
 of ability to analyze scientific problems including pertinent datasets and
 design and develop appropriate methods to solve said problems, as measured
 by rubric.
- 5. Integrated knowledge of bioinformatics: The candidate will demonstrate an appropriate level of knowledge of fundamentals of molecular biology, computational science, statistics and a more detailed understanding of an individual area of internship research, including an appropriate familiarity with the research literature, as measured by rubric.

Degree requirements

Accelerating students take as many as 12 graduate credits during the senior year. These credits may be applied to both the B.S. and M.Bin. degrees. These courses must be chosen in consultation with their undergraduate academic advisers. A sample set of shared credits is provided below.

- BNFO 620 Bioinformatics Practicum may replace BNFO 420 Applications 3 in Bioinformatics
- 2. Course work taken to meet master's requirements replaces undergraduate program electives or helps student meet general degree requirements for the B.S. degree (e.g. upper-level credits, total credits).
- BIOL/BNFO 540 Foundations of Molecular Genetics and BIOL/BNFO 541 5
 Laboratory in Molecular Genetics may be counted toward both degrees.

Total shared graduate credit hours 12

Prerequisites and bridge curricula for master's programs

Program prerequisites are listed below. In general, bioinformatics undergraduate students will meet most prerequisite requirements while completing the undergraduate major. It is expected that any remaining bridge course work will be completed during the first year of the graduate program.

- Biology/genomic prerequisites: an introductory knowledge of biochemistry and molecular biology, one semester of organic chemistry (e.g. CHEM 301), cell biology (e.g. BIOL 218) and Essentials of Molecular Biology in Bioinformatics (two-credit module: BNFO 507)
- Computational science prerequisites: an introductory knowledge of discrete mathematics (e.g. MATH 211) and an introductory knowledge of computer science, including at least one general computer programming language, met by taking structured programming (e.g. CMSC 255) and data structures and advanced programming (e.g. CMSC 256)
- Quantitative/statistical prerequisites: an introductory knowledge of mathematics/statistics, met by taking calculus with analytic geometry I (e.g. MATH 201) and Introduction to Statistical Computing (STAT 321) or Applied Statistics for Engineers and Scientists (STAT 541)

Bioinformatics externship

In addition to general VCU Graduate School graduation requirements, students enrolled in the M.Bin. degree program complete a 10- to 12-week full-time

externship at an industrial, government or academic site, usually during the summer between the first and second years of the bioinformatics program. In preparation for this externship, students will enroll in BNFO 620 Bioinformatics Practicum in the semester preceding their externships. Under the supervision of their major advisers and Graduate Advisory Committee, the external supervisor, and the coordinator of the bioinformatics practicum course, each student must develop and write a short proposal outlining the plans for the externship. The project must be approved by the student's GAC, based on a short (10-page) paper submitted by the student. This paper will include background on the project, including a review of the literature, the purpose, specific aims and rationale of the project, a statement about the specific hypothesis to be investigated, and proposed methods and statistical analyses. Research projects will be based on ongoing research in the laboratories of the participating external advisers. Students in the program may perform research on a broad range of subjects, from molecules to ecosystems, encompassing the field of bioinformatics.

In the semester following the externship experience, M.Bin. students shall prepare written papers describing the completed research performed during their externships following the format of the Graduate School's Thesis and Dissertation Manual. An oral defense, consisting of a public presentation of the paper and a committee meeting to discuss the results, under the direction of the GAC but open to all faculty members and the adviser of the externship, shall be scheduled to examine the student's underlying fundamental knowledge of the disciplines encompassed by the student's research. Announcement of the oral defense, including the candidate's name, project title, and the day, place and time of the defense, shall be made at least 10 working days in advance of the defense.

Courses

Credit

hours

Curriculum requirements

	hours
Core	22
BNFO 501 Introduction to Physical Implementation of Databases	1
BNFO/BIOL 540 Fundamentals of Molecular Genetics	3
BNFO 600 Basic Scripting Languages	2
BNFO/BIOL 601 Integrated Bioinformatics	3
BNFO 620 Bioinformatics Practicum	3
BNFO 621 Business and Entrepreneurship Essentials for Life Scientists	3
BNFO 690 Seminars in Bioinformatics	1
BNFO 700 Externship in Bioinformatics	2
CMSC 508 Database Theory	3
OVPR 601 Scientific Integrity	1
Recommended electives	12
BIOS 567 Statistical Methods for High-throughput Genomics Data I	3
BNFO/BIOL 541 Laboratory in Molecular Genetics	2
BNFO 591 Special Topics in Bioinformatics	variable
BNFO 592 Independent Study	variable
BNFO 637 Networks Biology	3
BNFO/MICR 653 Advanced Molecular Genetics: Bioinformatics	3
BNFO 691 Special Topics in Bioinformatics	variable
BNFO 691 Special Topics in Bioinformatics (Genomics and Phylogenetics)	3
BNFO 692 Independent Study	variable
CLSE 562 Advanced Systems Biology Engineering	3
CMSC 501 Advanced Algorithms	3
MATH 580 Methods of Applied Mathematics for the Life Sciences: Discrete	3
MATH 581 Methods of Applied Mathematics for the Life Sciences: ODE	3
MATH 582 Methods of Applied Mathematics for the Life Sciences: PDE	3
PHYS 591 Topics in Physics (modeling, computing and biocomplexity)	3

Total graduate credit hours required (minimum)

34

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Bioinformatics, Master of Science (M.S.)

Graduate program director

Gregory A. Buck, Ph.D.
Director, Center for the Study of Biological Complexity
gabuck@vcu.edu
(804) 827-0026

Additional contact

Allison A. Johnson, Ph.D. Assistant director, Center for the Study of Biological Complexity aajohnson@vcu.edu (804) 828-6782

Program website: vcu.edu/csbc/bioinformatics/master

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Bioinformatics, Master of (M.Bin.)

Bioinformatics, Master of (M.Bin.), accelerated Bachelor of Science in Bioinformatics (B.S.) to master's

Bioinformatics, Master of Science (M.S.), accelerated Bachelor of Science in Bioinformatics (B.S.) to master's

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Bioinformatics, Master of Science (M.S.)			
Degree: M.S.	Semester(s) of entry:	Deadline dates:	Test requirements:
	Fall	Jul 1	
	Spring	Nov 15	
	Summer	May 1	

Special requirements

International students requiring temporary U.S. visas should apply by April 1 for fall admission, Oct. 1 for spring admission or Feb. 1 for summer admission.

In addition to the general admission requirements of the VCU Graduate School, applicants are encouraged to include in their personal statements, and request that their referees also discuss, one or more examples of creative and analytical contributions they have made to a recent research project (preferred) or to a challenging course assignment.

Because of the interdisciplinary nature of bioinformatics, applications are welcomed from students with various academic backgrounds, such as biology, biotechnology, molecular biology, computer science, mathematics or statistics. Our program provides "bridge curricula" to strengthen students' preparation for graduate study in bioinformatics.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goals

The VCU Center for the Study of Biological Complexity created and administers the Master of Science (M.S.) in Bioinformatics degree program to provide interested students with the traditional "thesis master's," including the development, implementation, writing and presentation of a coherent research project under the supervision of a graduate faculty member. This degree is most appropriate for students committed to initiating research careers in a variety of settings, including students considering pursuing later work toward a Ph.D. Students enter the program from a variety of academic backgrounds (biology, chemistry, computer science, mathematics/statistics, etc.) assisted by flexible "bridge curricula" designed to help them meet program prerequisites. Students will have an effective exposure to the biotech industry and other career options and to real-life applications of their learning.

The Master of Science (M.S.) in Bioinformatics degree program will prepare students to:

- Synthesize and apply interdisciplinary subject matter: The M.Bin. degree
 program seeks to provide students with the skills and knowledge required to
 advance into Ph.D. training programs or research positions. The program
 provides a framework for the progressive development of a mastery of the
 interdisciplinary subject matter pertinent to bioinformatics and an ability to
 synthesize this information and apply it to key areas of investigation and
 experimentation in bioinformatics.
- Design, implement and interpret experimental approaches: The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches.
- Develop communication skills: In addition, the program will develop skills in oral and written communication of interdisciplinary science concepts, experimental design, results and interpretation.

Student learning outcomes

Oral communication skills: The candidate will demonstrate the
achievement of an appropriate level of oral communication skills with respect
to the content, organization, logical flow, presentation and appropriate use of
language incorporating the use of visual aids, as measured by rubric.

- Written communication skills: The candidate will demonstrate the
 achievement of an appropriate level of written communication skill with
 respect to grammar, syntax, spelling and use of vocabulary to effectively
 present information, including the use of figures, tables and citations, as
 measured by rubric.
- 3. Experimental design competency: The candidate will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify, and/or create and implement bioinformatics experimental protocols and to design and develop experiments, as measured by rubric.
- 4. Problem-solving skills: The candidate will demonstrate an appropriate level of ability to analyze scientific problems including pertinent datasets and design and develop appropriate methods to solve said problems, as measured by rubric.
- 5. Integrated knowledge of bioinformatics: The candidate will demonstrate an appropriate level of knowledge of fundamentals of molecular biology, computational science, statistics and a more detailed understanding of an individual area of internship research, including an appropriate familiarity with the research literature, as measured by rubric.

Degree requirements

Prerequisites and bridge curricula for master's programs

While an ideal preparation for the bioinformatics master's programs would include substantial work in molecular biology, computer science, mathematics and statistics, the program has been designed to provide "bridge curricula" to accommodate academically strong students with majors in any one of these or related disciplines. These students would develop with the assistance of their advisers a "bridge curriculum" of largely undergraduate courses to meet the prerequisites for the program and prepare them for graduate-level work.

Program prerequisites are listed below. In general, students will not need to address the set corresponding to their undergraduate majors, but will usually need to address the other two sets. It is expected that all bridge course work will be completed during the first year. While bridge courses may be completed prior to initiating the graduate program, this is not required, and most students are able, through advising, to complete bridge courses alongside graduate course work during the first year of the program.

- Biology/genomic prerequisites: an introductory knowledge of biochemistry and molecular biology, one semester of organic chemistry (e.g. CHEM 301), cell biology (e.g. BIOL 218) and Essentials of Molecular Biology in Bioinformatics (two-credit module: BNFO 507)
- Computational science prerequisites: an introductory knowledge of discrete mathematics (e.g. MATH 211) and an introductory knowledge of computer science, including at least one general computer programming language, met by taking structured programming (e.g. CMSC 255) and data structures and advanced programming (e.g. CMSC 256)
- Quantitative/statistical prerequisites: an introductory knowledge of mathematics/statistics, met by taking calculus with analytic geometry I (e.g. MATH 201) and Introduction to Statistical Computing (STAT 321) or Applied Statistics for Engineers and Scientists (STAT 541)

Thesis research

In addition to general VCU Graduate School graduation requirements, students in the M.S. program must perform a credible original investigation under the supervision of their major advisers and the Graduate Advisory Committee. Students must develop and write short proposals in consultation with their major advisers and GAC. The project must be approved by the student's GAC, based on a short (10-page) paper submitted by the student. This paper will include background on the project, including a review of the literature, the purpose, specific aims and rationale of the project, a statement about the specific hypothesis to be investigated, and proposed methods and statistical analyses.

Research projects will be based on ongoing research in the laboratories of faculty in the CSBC and across both campuses of VCU and the Virginia BioTechnology Research Park. Students in the program may perform research on the broad range of subjects, from molecules to ecosystems, studied by CSBC faculty.

Students shall prepare a written thesis describing the completed research performed during their tenure in the M.S. in Bioinformatics program following the format of the Graduate School Thesis and Dissertation Manual. An oral defense, consisting of a public presentation of the thesis and a committee meeting to

discuss the thesis, under the direction of the GAC but open to all faculty members, shall be scheduled to examine the student's research, thesis and underlying fundamental knowledge of the discipline encompassed by the student's research. Announcement of the oral defense, including the candidate's name, thesis title and the day, place and time of the defense, shall be made at least 10 working days in advance of the defense.

Curriculum requirements

Courses	Credit hours
Core	22
BNFO 501 Introduction to Physical Implementation of Databases	1
BNFO 508 Introduction to Bioinformatics Research	2
BNFO/BIOL 540 Fundamentals of Molecular Genetics	3
BNFO 600 Basic Scripting Languages	2
BNFO/BIOL 601 Integrated Bioinformatics	3
BNFO 690 Seminars in Bioinformatics	1
BNFO 697 Directed Research in Bioinformatics	6
CMCC 500 D	(minimum)
CMSC 508 Database Theory	3
OVPR 601 Scientific Integrity	1
Recommended electives	12
BIOS 567 Statistical Methods for High-throughput Genomics Data I	3
BNFO/BIOL 541 Laboratory in Molecular Genetics	2
BNFO 591 Special Topics in Bioinformatics	variable
BNFO 592 Independent Study	variable
BNFO 620 Bioinformatics Practicum	3
BNFO 621 Business and Entrepreneurship Essentials for Life Scientists	3
BNFO 637 Networks Biology	3
BNFO/MICR 653 Advanced Molecular Genetics: Bioinformatics	3
BNFO 691 Special Topics in Bioinformatics	variable
BNFO 691 Special Topics in Bioinformatics (Genomics and Phylogenetics)	3
BNFO 692 Independent Study	variable
CLSE 562 Advanced Systems Biology Engineering	3
CMSC 501 Advanced Algorithms	3
MATH 580 Methods of Applied Mathematics for the Life Sciences: Discrete	3
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MATH 582 Methods of Applied Mathematics for the Life Sciences: PDE	3
PHYS 591 Topics in Physics (modeling, computing and biocomplexity)	3

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

34

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Bioinformatics, Master of Science (M.S.), accelerated Bachelor of Science in Bioinformatics (B.S.) to master's

Graduate program director

Gregory A. Buck, Ph.D.

Director, Center for the Study of Biological Complexity gabuck@vcu.edu

(804) 827-0026

Additional contact

Allison A. Johnson, Ph.D.

Assistant director, Center for the Study of Biological Complexity aajohnson@vcu.edu

(804) 828-6782

Program website: vcu.edu/csbc/bioinformatics/bachelormaster

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Bioinformatics, Master of (M.Bin.)

Bioinformatics, Master of (M.Bin.), accelerated Bachelor of Science in

Bioinformatics (B.S.) to master's

Bioinformatics, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Bioinformatics, Master of Science (M.S.), accelerated Bachelor of Science in Bioinformatics (B.S.) to master's			
Degree:	Semester(s) of	Deadline dates:	Test requirements:
M.S.	entry:		GRE
	Fall	Jul 1	
	Spring	Nov 15	
	Summer	May 1	

Special requirements:

Applicants must have junior or senior status in VCU's Bachelor of Science (B.S.) in Bioinformatics program and should discuss their interests with the bioinformatics coordinator during the junior year in order to plan the graduate courses to be taken during the senior year and shared between the two degrees.

In addition to the general admission requirements of the VCU Graduate School, applicants are encouraged to include in their personal statements, and to request that their referees also discuss, one or more examples of creative and analytical contributions they have made to a recent research project (preferred) or to a challenging course assignment.

The accelerated bachelor's to master's program in bioinformatics permits selected students majoring in bioinformatics to earn the bachelor's and master's degrees in a minimum of five years by taking certain graduate-level courses during the senior year of the undergraduate program. The program is restricted to students with strong credentials and a clear interest in a career in the field of bioinformatics.

In order to be admitted into the program, a student must be a VCU bioinformatics major, must have completed 90 undergraduate credit hours with an overall GPA of 3.0, including a substantial amount of collateral and core course work within the

major and evidence of strong academic achievement. An application must be submitted to Graduate Admissions. Students also are required to provide at least two letters of recommendation from their major professors attesting to their interest and competence in bioinformatics. Most students will be able to initiate the application process during the second semester of the junior year.

Following acceptance into the accelerated program, students must continue to meet the requirements stated above throughout the senior year, as well as the graduate student standards of performance specified in this bulletin, in order to be awarded formal acceptance into the graduate program, which typically takes place just prior to the fall semester of the fifth year.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

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General academic regulations for all graduate students in all graduate programs at VCU



Program goals

Established and administered by the VCU Center for the Study of Biological Complexity, the Master of Science (M.S.) in Bioinformatics degree program will prepare students to:

- Synthesize and apply interdisciplinary subject matter: The M.Bin. degree
 program seeks to provide students with the skills and knowledge required to
 advance into Ph.D. training programs or research positions. The program
 provides a framework for the progressive development of a mastery of the
 interdisciplinary subject matter pertinent to bioinformatics and an ability to
 synthesize this information and apply it to key areas of investigation and
 experimentation in bioinformatics.
- Design, implement and interpret experimental approaches: The program relates the above framework to the development of the ability to design, implement and interpret experimental approaches.
- Develop communication skills: In addition, the program will develop skills in oral and written communication of interdisciplinary science concepts, experimental design, results and interpretation.

Student learning outcomes

- Oral communication skills: The candidate will demonstrate the
 achievement of an appropriate level of oral communication skills with respect
 to the content, organization, logical flow, presentation and appropriate use of
 language incorporating the use of visual aids, as measured by rubric.
- Written communication skills: The candidate will demonstrate the achievement of an appropriate level of written communication skill with respect to grammar, syntax, spelling and use of vocabulary to effectively present information, including the use of figures, tables and citations, as measured by rubric.
- 3. Experimental design competency: The candidate will demonstrate the achievement of an appropriate level of competence in the ability to appraise, modify, and/or create and implement bioinformatics experimental protocols and to design and develop experiments, as measured by rubric.

- 4. Problem-solving skills: The candidate will demonstrate an appropriate level of ability to analyze scientific problems including pertinent datasets and design and develop appropriate methods to solve said problems, as measured by rubric.
- 5. Integrated knowledge of bioinformatics: The candidate will demonstrate an appropriate level of knowledge of fundamentals of molecular biology, computational science, statistics and a more detailed understanding of an individual area of internship research, including an appropriate familiarity with the research literature, as measured by rubric.

Degree requirements

Accelerating students take as many as 12 graduate credits during the senior year. These credits may be applied to both the B.S. and M.S. degrees. These courses must be chosen in consultation with their undergraduate academic advisers. A sample set of shared credits is provided below.

- BNFO 508 Introduction to Bioinformatics Research may replace BNFO 420 2 Applications in Bioinformatics.
- Course work taken to meet master's requirements replaces undergraduate program electives or helps student meet general degree requirements for the B.S. degree (e.g. upper-level credits, total credits).
- BIOL/BNFO 540 Fundamentals of Molecular Genetics and BIOL/BNFO 541 Laboratory in Molecular Genetics may be counted toward both degrees.

Total shared graduate credit hours

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Prerequisites and bridge curricula for master's programs

Program prerequisites are listed below. In general, bioinformatics undergraduate students will meet most prerequisite requirements while completing the undergraduate major. It is expected that any remaining bridge course work will be completed during the first year of the graduate program.

- Biology/genomic prerequisites: an introductory knowledge of biochemistry and molecular biology, one semester of organic chemistry (e.g. CHEM 301), cell biology (e.g. BIOL 218) and Essentials of Molecular Biology in Bioinformatics (two-credit module: BNFO 507)
- Computational science prerequisites: an introductory knowledge of discrete mathematics (e.g. MATH 211) and an introductory knowledge of computer science, including at least one general computer programming language, met by taking structured programming (e.g. CMSC 255) and data structures and advanced programming (e.g. CMSC 256)
- Quantitative/statistical prerequisites: an introductory knowledge of mathematics/statistics, met by taking calculus with analytic geometry I (e.g. MATH 201) and Introduction to Statistical Computing (STAT 321) or Applied Statistics for Engineers and Scientists (STAT 541)

Thesis research

In addition to general VCU Graduate School graduation requirements, students in the M.S. program must perform a credible original investigation under the supervision of their major advisers and the Graduate Advisory Committee. Students must develop and write short proposals in consultation with their major advisers and GAC. The project must be approved by the student's GAC, based on a short (10-page) paper submitted by the student. This paper will include background on the project, including a review of the literature, the purpose, specific aims and rationale of the project, a statement about the specific hypothesis to be investigated, and proposed methods and statistical analyses.

Research projects will be based on ongoing research in the laboratories of faculty in the CSBC and across both campuses of VCU and the Virginia BioTechnology Research Park. Students in the program may perform research on the broad range of subjects, from molecules to ecosystems, studied by CSBC faculty.

Students shall prepare a written thesis describing the completed research performed during their tenure in the M.S. in Bioinformatics program following the format of the Graduate School Thesis and Dissertation Manual. An oral defense, consisting of a public presentation of the thesis and a committee meeting to discuss the thesis, under the direction of the GAC but open to all faculty members, shall be scheduled to examine the student's research, thesis and underlying fundamental knowledge of the discipline encompassed by the student's research. Announcement of the oral defense, including the candidate's name, thesis title and the day, place and time of the defense, shall be made at least 10 working days in advance of the defense.

Curriculum requirements

Courses	Credit hours
Core	22
BNFO 501 Introduction to Physical Implementation of Databases	1
BNFO 508 Introduction to Bioinformatics Research	2
BNFO/BIOL 540 Fundamentals of Molecular Genetics	3
BNFO 600 Basic Scripting Languages	2
BNFO/BIOL 601 Integrated Bioinformatics	3
BNFO 690 Seminars in Bioinformatics	1
BNFO 697 Directed Research in Bioinformatics	6
	(minimum)
CMSC 508 Database Theory	3
OVPR 601 Scientific Integrity	1
Recommended electives	12
BIOS 567 Statistical Methods for High-throughput Genomics Data I	3
BNFO/BIOL 541 Laboratory in Molecular Genetics	2
BNFO 591 Special Topics in Bioinformatics	variable
BNFO 592 Independent Study	variable
BNFO 620 Bioinformatics Practicum	3
BNFO 621 Business and Entrepreneurship Essentials for Life Scientists	3
BNFO 637 Networks Biology	3
BNFO/MICR 653 Advanced Molecular Genetics: Bioinformatics	3
BNFO 691 Special Topics in Bioinformatics	variable
BNFO 691 Special Topics in Bioinformatics (Genomics and Phylogenetics)	3
BNFO 692 Independent Study	variable
CLSE 562 Advanced Systems Biology Engineering	3
CMSC 501 Advanced Algorithms	3
MATH 580 Methods of Applied Mathematics for the Life Sciences: Discrete	3
MATH 581 Methods of Applied Mathematics for the Life Sciences: \ensuremath{ODE}	3
MATH 582 Methods of Applied Mathematics for the Life Sciences: PDE $$	3
PHYS 591 Topics in Physics (modeling, computing and biocomplexity)	3

Total graduate credit hours required (minimum)

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements





2014-15 Graduate and Professional Programs Bulletin

Division of Community Engagement

817 South Cathedral Place P.O. Box 843062 Richmond, Virginia 23284-3062 Phone: (804) 828-8848

Fax: (804) 828-2756 www.community.vcu.edu

Catherine W. Howard, Ph.D.

Vice Provost, Division of Community Engagement, and associate professor of psychology

The Division of Community Engagement provides Virginia Commonwealth University with a centralized administrative unit focused on community engagement and nontraditional programs. In keeping with VCU's mission, the office:

- Facilitates and coordinates innovative academic programs, on and off campus, to enhance the community's access to VCU.
- Supports the involvement of faculty and students on the Monroe Park Campus and MCV Campus in community partnerships.
- Creates opportunities for interdisciplinary, community-based collaborations that integrate research, teaching and service.

The Division of Community Engagement consists of the Office of Continuing Studies and Special Programs and VCU Community Solutions. The division resides within the Office of the Provost and Vice President for Academic Affairs and assumes administrative responsibility for academic programs including off-campus courses, off-campus graduate art courses and the Master of Interdisciplinary Studies in Interdisciplinary Art, service-learning courses and the Service-Learning Associates Program, Nonprofit Learning Point, and the Retired Faculty Council. Additionally, the division administers various university-community partnerships that address pressing social concerns in the community including the Carver-VCU Partnership, Lobs & Lessons, VCU AmeriCorps, America Reads and the Virginia Mentoring Partnership.

Office of Continuing Studies and Special Programs

The university provides numerous opportunities for adult education, off-campus instruction and professional development through the Office of Continuing Studies and Special Programs. Continuing studies programs offer the same course work and academic credit as traditional university courses and are fully degreeapplicable within the normal standards of VCU's college and schools.

The office attempts to address the educational and professional training needs of the community by providing flexible, cost-effective instruction that returns valued and needed knowledge into the community.

Program examples include the Nonprofit Learning Point certificate program, profession-specific and introductory Spanish courses, specialization and recertification programs for teachers, off-campus degree programs including the R.N. to B.S.N. program, the NOVA M.S.W. program, and advanced-study courses for gifted high school students.

For more information, call (804) 828-8819 or visit www.community.vcu.edu.

Off-Campus Graduate Art Master of Interdisciplinary Studies in Interdisciplinary Art Nonprofit Learning Point

Off-Campus Graduate Art

Since 1993, VCU has offered off-campus graduate art classes in locations from the Washington, D.C., area to Tidewater. Classes are open to all qualified students (persons with undergraduate degrees in art or equivalent experience), but are particularly designed for art teachers interested in license renewal, a graduate degree program or personal enrichment. During the fall and spring semesters, classes meet one evening per week, usually from 4:30 to 8:30 p.m. In the summer semester, classes are scheduled for 10 all-day workshops over a two- or three-week period. A degree program, the Master of Interdisciplinary Studies in Interdisciplinary Art, is offered, but students need not be in a degree program in order to take classes. For more information, call (804) 592-2600 or visit www.community.vcu.edu.

Master of Interdisciplinary Studies in Interdisciplinary Art

The Master of Interdisciplinary Studies in Interdisciplinary Art degree is jointly administered by the School of the Arts and the Division of Community Engagement. It is not the equivalent of a Master of Fine Arts degree, but is an additional option for qualified persons, especially art teachers, who are interested in studio art classes. Classes are offered in public school art rooms from Fairfax County to Virginia Beach, in the late afternoon during the regular school year and in all-day workshops during the summer. The M.I.S. degree requires the completion of 39 graduate credits, including at least nine and no more than 15 credits in each of two focus areas. Focus areas include, but are not limited to, crafts, computers and the arts, mixed media, painting, photography, printmaking, drawing, and sculpture. In addition, the student must complete from three to 15 credits of art electives and six credits of an approved final project, including a graduate exhibition and a final paper. For more information, call (804) 828-8819 or visit www.community.vcu.edu.

Nonprofit Learning Point

Since 1997 the university has been a leading partner in a community collaborative that sponsors Nonprofit Learning Point (formerly the Especially for Nonprofit Organizations Program). In addition to being a sponsoring partner, VCU also manages the program, which provides educational and networking opportunities as well as capacity-building for the vast network of nonprofit organizations in the greater-Richmond area. The program is open to any paid or volunteer staff member of a nonprofit organization and offers the chance to earn both academic credit and a certificate of achievement in nonprofit management (after 12 courses). Classes usually meet for two days, one week apart, from 9 a.m. to 3 p.m., throughout the city of Richmond. An annual conference and certificate awards ceremony are held each fall. Class and conference topics include, but are not limited to, strategic management, communications, legal issues for nonprofits, and technology skills. For more information, call (804) 827-0246 or visit www.nonprofitlearningpoint.org.

Office of VCU Community Solutions

The primary mission of VCU Community Solutions is to connect the university with the community to create opportunities for social change. Campus and community partners create a unique synergy of collaborative research, teaching and service. An interdisciplinary team of faculty and community partners is responsible for the generation and implementation of community-based projects. Students become involved through service-learning courses and participation on community-based research teams. For more information, call (804) 828-8824 or visit www.community.vcu.edu.

Service-Learning VCU America Reads Program VCU AmeriCorps Carver-VCU Partnership

Service-Learning

Service-learning integrates community service with traditional academic courses in order to enhance academic learning, facilitate the development of students into responsible citizens and meet community-identified needs. Each student participates in an organized community service project that directly relates to the subject matter of the course and which meets community-identified needs. The students then participate in reflection activities, which are facilitated in such a way so as to increase their understanding and application of course content and enhance their sense of civic responsibility. The community organization defines the service need and the students learn and grow from their service through reflection on their experience. A listing of service-learning courses is provided in the Schedule of Classes each semester. For more information, call (804) 827-8215 or visit www.servicelearning.vcu.edu.

VCU America Reads Program

The VCU America Reads Program places college work-study students in local elementary schools to provide comprehensive reading support to students who are below grade level in reading. The program works in partnership with Richmond City Schools as well as schools in the surrounding counties to identify elementary school children who are in need of extra assistance. Reading support is provided at

partner schools during the normal school day as well as during academically focused after-school programs. Program applications are available throughout the year at the following locations:

- · Community Programs Office located at 1103 W. Marshall St.
- VCU Career Center and Student Activities Center located in the University Student Commons, 907 Floyd Ave.
- VCU Office of Financial Aid located at 1015 Floyd Ave.

For more information, visit www.community.vcu.edu. Applications may also be downloaded at the America Reads Web site at www.ed.gov/inits/americareads or they can be mailed upon request by calling (804) 828-1907.

VCU AmeriCorps

Established in 1995, the AmeriCorps program at VCU has an educational focus with the goal of helping improve the literacy skills of local children and families. Reading by third grade has been identified by the Richmond community as a critical preventive strategy in addressing the health and safety needs of children in the metro area. VCU AmeriCorps members address this need by providing comprehensive reading support to elementary school students who are struggling academically. Members also enhance family literacy skills and parent involvement at partner schools by lending support to existing services as well as developing new programs to meet specific needs. Applications are available beginning in March at the following locations:

- Community Programs Office located at 1103 W. Marshall St.
- VCU Career Center and Student Activities Center located in the University Student Commons, 907 Floyd Ave.
- VCU Office of Financial Aid located at 1015 Floyd Ave.

For more information, visit www.community.vcu.edu. Applications can also be downloaded at the AmeriCorps Web site at www.americorps.gov, or applications can be mailed upon request by calling (804) 828-1907.

Carver-VCU Partnership

In the spirit that partnerships, not fences, promote safe and nurturing communities, VCU has created a partnership with its northern-boundary neighbor, the Carver community. The Carver-VCU Partnership strives to create a shared urban community with a commitment to improving the neighborhood's quality of life including its health, community development, youth development, and safety while extending the experience of the community into the classroom and the university. For more information, call (804) 827-1904 or visit www.community.vcu.edu.



2014-15 Graduate and Professional Programs Bulletin

Division of Strategic Enrollment Management

408 West Franklin Street, Second Floor Richmond, Virginia 23284-3065 Phone: (804) 827-8737 sem@vcu.edu www.sem.vcu.edu

Luke Schultheis, Ph.D.

Vice Provost, Division of Strategic Enrollment Management

The Division of Strategic Enrollment Management provides primary oversight for the recruitment, retention and graduation of students at all levels. The purpose of the division is to ensure academic quality and student success, which is dependent upon the recruitment, retention and timely graduation of a talented and diverse student body. Our goals and aspirations are clearly articulated in the university's strategic plan, and a primary component of our vision is to ensure that we attract and retain students who will graduate at a higher rate and who will contribute to a highly skilled 21st-century workforce.

Within the division there are several operational areas: Admissions, Degree Audit, Financial Aid, Military Student Services, New Student Programs, Records and Registration, Student Accounting, the Student Services Center and the Transfer Center. The Office of Admissions manages the recruitment and application processes for all graduate, international and undergraduate applicants. Military Student Services works with veterans, active service members, spouses and dependents to ease the transition from military life to the world of academics. The offices of Degree Audit, Financial Aid, Records and Registration, Student Accounting and the Student Services Center oversee and manage the matriculation, financial aid, billing and graduation processes for all new and continuing VCU students. The Office of New Student Programs provides new students and their families with resources and programming to support the academic experience, while the VCU Transfer Center offers resources to transfer students to ensure a smooth and seamless transition to the university and support for successful progress toward graduation.

For more information, please visit the Division of Strategic Enrollment Management website.



2014-15 Graduate and Professional Programs Bulletin

Division of Student Affairs

901 Floyd Avenue P.O. Box 843017 Richmond, Virginia 23284-3017 (804) 828-1244 Fax: (804) 828-2180

www.students.vcu.edu

Henry G. Rhone

Vice Provost for Student Affairs

Reuban B. Rodriguez

Associate Vice Provost and Dean of Student Affairs

Charles Klink

Associate Vice Provost for Student Affairs

Napoleon Peoples

Associate Dean of Student Affairs, MCV Campus

The university offers students a wide variety of services, facilities and resources, many of which are the administrative responsibility of the Division of Student Affairs

Office of the Vice Provost for Student Affairs Office of the Associate Vice Provost and Dean of Student Affairs Office of the Associate Vice Provost of Student Affairs Office of the Associate Dean of Student Affairs, MCV Campus

Office of the Vice Provost for Student Affairs

Henry G. Rhone

Vice Provost for Student Affairs

The Office of the Vice Provost provides leadership and direction for the Division of Student Affairs. The Division of Student Affairs is a dynamic division promoting academic success and development of the whole person. The division seeks to create a student-centered culture promoting community, encouraging engagement and developing students to be contributing citizens in a global and diverse society through its programs, services, facilities and activities.

The Division of Student Affairs comprises departments promoting the intellectual, cultural, personal, social, moral, financial, physical and psychological development of Virginia Commonwealth University students. Departments in the division include: Office of the Associate Vice Provost and Dean of Student Affairs, Monroe Park Campus; the Office of the Associate Dean of Student Affairs, MCV Campus; the Office of the Associate Vice Provost of Student Affairs; University Student Commons and Activities; the University Career Center; University Counseling Services; Disability Support Services; University Student Health Services; Office of Multicultural Student Affairs; Recreational Sports; Office of Student Conduct and Academic Integrity; Student Media; Financial Management and Technology; and Residential Life and Housing.

The division provides administrative support for key policies of the university, including the VCU Honor System and the Rules and Procedures. Most Division of Student Affairs publications are available on the Web at www.students.vcu.edu.

The Office of the Vice Provost for Student Affairs is located in the Sitterding House at 901 Floyd Ave., P.O. Box 843017, Richmond, VA 23284-3017; telephone: (804) 828-1244.

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Office of the Associate Vice Provost and Dean of Student Affairs

Reuban B. Rodriguez

Associate Vice Provost and Dean of Student Affairs

The Office of the Associate Vice Provost and Dean of Student Affairs is actively involved in understanding the needs of students, improving the quality of student life, supporting student success, promoting leadership development and disseminating important information for students. The office provides services and support to students through a wide range of programs, activities and resources. The office assists students in solving problems and advocates for students when appropriate. The office provides information and referral to students, faculty, staff and parents on a variety of student-related issues. The office provides oversight for the administration of the university's disciplinary procedures and the honor system.

The dean sits on a number of university committees, participates in orientation activities, provides supervision for several departments of the Division of Student Affairs and serves as a key administrator for several major policy statements of the university including the VCU Honor System.

Students, parents of students and staff who have issues they wish to discuss or who are interested in various programs and opportunities should visit the dean's office, located in the Sitterding House, 901 Floyd Ave., P.O. Box 843017, Richmond, VA 23284-3017; telephone: (804) 828-8940; email: vcudean@vcu.edu.

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Office of the Associate Vice Provost for Student Affairs

Charles Klink

Associate Vice Provost for Student Affairs

The Office of the Associate Vice Provost for Student Affairs provides assistance to the vice provost for student affairs in the overall administration of the Division of Student Affairs. This office is actively involved in understanding students and their needs, improving the quality of student life, and collecting and disseminating information important to students and to the university.

The associate vice provost serves as the division ombudsman in addressing and resolving student issues and concerns inhibiting success at the university, provides leadership for assessment and professional development activities for the division, and oversees a number of initiatives focused on utilizing external and internal resources to support and recognize student success. The associate vice provost provides supervision for several departments in the division including the University Career Center, Disability Support Services, University Counseling Services and Student Media.

The Office of the Associate Vice Provost for Student Affairs is located in the Sitterding House at 901 Floyd Ave., P.O. Box 843017, Richmond, VA 23284-3017; telephone: (804) 828-7525; email: cjklink@vcu.edu.

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Office of the Associate Dean of Student Affairs, MCV Campus

Napoleon Peoples

Associate Dean of Student Affairs, MCV Campus

The Office of the Associate Dean works closely with the Office of the Associate Vice Provost and Dean of Student Affairs in serving as a resource for students, parents, faculty and staff. The associate dean serves as the primary liaison between the organized student body on the MCV Campus and the university, providing coordination and leadership for student affairs and related staff.

The associate dean serves as the faculty adviser to the MCV Campus Student Government Association. The associate dean represents the Division of Student Affairs on several universitywide committees and also participates in the general orientation sessions for each school on the MCV Campus. The associate dean maintains an open-door policy and will advise students, parents, faculty and staff on university-related issues or procedures.

The associate dean's office is located in the Hunton Student Center, Suite 205, 1110 E. Broad St., P.O. Box 980004; telephone: (804) 828-0525; email: npeoples@vcu.edu.

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University Student Commons and Activities

Reuban Rodriguez

Interim Director

www.usca.vcu.edu

The facilities, services and programs of University Student Commons and Activities (USC&A) are designed and implemented to bring together all members of the Virginia Commonwealth University community — students, faculty, staff, alumni and guests — thereby contributing to intellectual, emotional and social growth through informal interaction.

Facilities Programs Services

Facilities

USC&A manages three student centers on the Monroe Park and MCV Campuses of VCU.

The University Student Commons is the main student-life facility for the Monroe Park Campus. The Commons, located in the heart of VCU's Monroe Park Campus, is a great place to meet friends, host an event, get involved, or study. The Park Place Food Court, Commons Café and Commons Convenience provide a wide variety of dining options. Break Point, located in the Lower Level of the Commons, is the university's game room with pool tables, arcades and Thunder Bowl. The Commons is home to the Student Organization Center, Off-campus Student Services, University Career Center, University Counseling Services, Disability Support Services, the Office of Multicultural Student Affairs, and the Student Government Association.

The Hunton Student Center and the Jonah L. Larrick Student Center are both located on the MCV Campus. Hunton Student Center is a great place to study or grab a bite to eat between classes. The renovated 1841 church building has a state-of-the-art learning center, managed by VCU Libraries, along with spacious study areas on two floors including private group-study rooms. Also located in Hunton are the offices for the Associate Dean of Students, MCV Student Government Association, the Hideaway Café, and a student recreation area. Larrick is a multipurpose room used for dances, lectures, receptions, and other functions. The first floor of Larrick Student Center also serves as a student dining facility.

Information centers can be found at both the Commons and Hunton Student Center. A complete list of services and programs that these facilities offer is available online at www.usca.vcu.edu.

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Programs

USC&A offers a wide variety of programs and leadership opportunities for students on both the Monroe Park Campus and MCV Campus. The following programming offices are included in the USC&A: Monroe Park Campus and MCV Campus Programs Office, Fraternity and Sorority Life, Leadership Development, Student Organization Services, and Volunteer Services. Through these offices, several university traditions and major events are coordinated. These events include: Welcome Week, Student Organization-Volunteer Organization Fair, Jazz on the Green, Fraternity and Sorority Recruitment, RamMadness, Fall Fest, Homecoming, Speak from the Heart Speaker Series, Greek Week, STRUT Fashion Show, Student Organization Awards Ceremony, Saturday Volunteer Specials, and Leadership and Service.

Students are encouraged to participate in these university traditions along with participating in other programs and events offered during the week and weekends. A complete listing of programs and events is available online at www.usca.vcu.edu.

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Services

USC&A offers a wide variety of services for students and the entire VCU community including Information Services, Off Campus Student Services, Student Organization Services, and Volunteer Services.

Information Services staff provide campus directions and information about programs or events. More information can be obtained by calling (804) 828-1981 or visiting the Web at www.usca.vcu.edu/information.

Off Campus Student Services offer a variety of ways to assist and educate those who drive, ride, walk or bus to campus. OCSS provides a Web-based housing search system, ride-share assistance, a care emergency tool kit for check-out, bicycle registration, educational programs and coin operated rental lockers. More information on Off Campus Student Services is available online at www.usca.vcu.edu/offcampus.

The Student Organization Service Center offers mail boxes, computer work stations, storage, work rooms, financial assistance for student organizations, general planning, and advising for all student organizations. SOSC staff assist students in identifying student organizations of interest. Volunteer Services provides information on opportunities to serve the greater Richmond community through volunteer experience. More information on volunteer opportunities is available online at www.usca.vcu.edu/studentorgs/volunteer.htm.

University Career Center

Joe Testani

Director

www.students.vcu.edu/careers

The University Career Center assists students and recent alumni to identify and achieve their career goals. Career Center staff work with students to help them explore career options, decide on career directions and develop sound strategies for realizing their career goals.

The Career Center offers a career library of more than 600 books and publications. Students have access to employer literature, recruiting brochures and graduate and professional school publications.

Career counseling sessions are offered by appointment using assessment tools such as the Strong Interest Inventory, the Self-Directed Search and the Myers-Briggs Type Indicator. Students may receive assistance with resume development, job search skills and interviewing techniques.

The Career Center maintains job postings of full-time, part-time, internship and co-op positions for students who are eligible. These postings may be accessed 24 hours a day through an account with the Career Center. Both on- and off-campus work-study positions for eligible students can be viewed online at www.students.vcu.edu/careers.

The Career Center also offers a comprehensive Cooperative Education Program that blends traditional academics with paid work assignments in industry, business, government and nonprofit organizations. For additional information, including eligibility, go to www.students.vcu.edu/careers and the "Co-op" link.

Graduating students use the Career Center to interview with business, industry, government and education representatives who visit the campus to recruit prospective graduates for permanent positions in their respective organizations. Students are encouraged to sign up as participants in the Career Center's Webbased resume referral system called RamsRecruiting in order to be referred to employers and have access to job listings.

The University Career Center is located in the Student Commons, Room 143, 907 Floyd Ave., P.O. Box 8432007, Richmond, VA 23284-2007; telephone: (804) 828-1645.

University Counseling Services

Jihad Aziz

Director

www.students.vcu.edu/counseling

University Counseling Services provides psychological services to the university community. The mission of UCS is to create an environment that fosters student growth, development and psychological well-being.

Members of UCS' professional staff include clinical psychologists, licensed clinical social workers, a consulting psychiatrist, psychology and social work interns, and advanced graduate students. UCS provides free brief psychotherapy to currently enrolled students as available. UCS adheres to professional, legal and ethical guidelines established by professional organizations and state law to protect student confidentiality.

University Counseling Services include:

- Counseling and psychotherapy. Individual and couples work is designed to deal with personal and interpersonal issues.
- Group counseling. Ongoing psychotherapy groups focus on personal and social concerns.
- Psychiatric services. Limited services include medical evaluation, diagnosis
 and treatment with psychotropic medication.
- Crisis services. Walk-in crisis services during office hours (828-6200) and on-call crisis services after hours and on weekends (828-1234).
- Consultation and outreach. Presentations, workshops and staff consultation
 are available to student organizations, academic departments and other
 groups on issues relevant to each group's needs.
- Safe zone. Workshops for faculty and staff designed to reduce homophobia and heterosexism.

UCS has office locations on both campuses. The Monroe Park Campus office is located in University Student Commons, Room 238, 907 Floyd Ave., P.O. Box 842525, Richmond, VA 23284-2525; telephone: (804) 828-6200. The MCV Campus office is located in the basement of Grant House, 1008 E. Clay St., P.O. Box 980238, Richmond, VA 23298-0238; telephone: (804) 828-3964.

University Student Health Services

Margaret Roberson

Medical Director

www.students.vcu.edu/health

University Student Health Services offers quality primary health care for treatment of acute and chronic illness. In addition to diagnosis and treatment, the service emphasizes prevention of illness through screening, counseling and health promotion/public health programs. All full-time undergraduate and graduate students are required to pay the student health fee each semester. Part-time students enrolled in at least three credit hours have the option of paying the health fee. The summer fee is optional for all students who will be enrolled the following fall semester.

USHS professional staff includes physicians, psychiatrists, physician assistants, nurse practitioners, registered nurses, pharmacists, health educators and registered dieticians. Services offered include primary care clinics, allergy clinics (administration of allergy injections ordered and supplied by outside physicians), women's clinics, pharmacy and laboratory services, immunization services, health education/public health programs and an after-hours phone triage service provided for urgent medical advice.

USHS has office locations on both campuses. The Monroe Park Campus office is located in the Sports Medicine Building, 1300 W. Broad St., Suite 2200, P.O. Box 842022, Richmond, VA 23284-2022; telephone: (804) 828-8828; fax: (804) 828-1093. The MCV Campus office is located in the VMI Building, 1000 E. Marshall St., Room 305, P.O. Box 980201, Richmond, VA 23298-0201; telephone: (804) 828-9220.

Immunization requirements

Health insurance

The Wellness Resource Center

Alcohol and other drug prevention education

Smoking cessation

Nutrition, eating disorders and body image

Sexual assault and domestic violence

Stress management

Sexual health

Immunization requirements

Virginia law requires all full-time students to submit an official certification of immunization to USHS prior to registration. These immunization requirements, along with the necessary forms, can be found at www.students.vcu.edu/health/immunization.html and in the Handbook for Admitted Students.

All students regardless of enrollment status, whose birth country is not the U.S. or Canada, are required to complete the tuberculosis screening in the U.S. within the last year

Students enrolled in health career programs may be required to submit additional immunization information and should contact their school for additional requirements.

Health insurance

The university is not responsible for accidents occurring to students in connection with class, laboratory, shop, fieldwork, athletics, student activities, travel or any other activity.

The university offers its students an approved insurance plan providing substantial benefits at group rates. The insurance extends for a 12-month period beginning in August, or from the beginning of the second semester to the next August, and includes coverage for accidents, hospitalization, medical, surgical and other benefits for illnesses. Married students may enroll spouses and children. The university strongly recommends that all students enroll in student group health insurance.

Complete information about enrolling is available from USHS and on the Web at www.students.vcu.edu/health/health insurance.html.

The Wellness Resource Center

(804) 828-9355

www.thewell.vcu.edu

The Wellness Resource Center (aka "The Well") is located at 815 S. Cathedral Place and is the prevention education outreach component of Student Health. The Wellness Resource Center is engaged in the science of empowering all students to move toward optimal health — a balance of physical, emotional, social, intellectual and spiritual health. The center's staff is committed to helping VCU students learn more about health through individual sessions, group presentations and awareness events. Most services are free to VCU students. There are many volunteer opportunities for students at the center, including several peer health educator groups.

Alcohol and other drug prevention education

(804) 828-2086

If you are concerned about your use or someone else's use, please feel free to call our office for resource information. Education programming is available upon request. A free online anonymous self-assessment is available at www.thewell.vcu.edu (code word is vcurams).

Smoking cessation

(804) 828-7815

Free Quit Kits, information and individual appointments are available to help students quit tobacco use. Email quit@vcu.edu for additional information and resources.

Nutrition, eating disorders and body image

(804) 828-9355

Education on healthy eating or eating disorder recovery is available through confidential individual nutrition sessions. Programs on nutrition, body image and eating disorders are available to student groups and classes.

Sexual assault and domestic violence

(804) 828-2085

Confidential services are available for students with concerns surrounding sexual assault, stalking, sexual harassment and relationship violence. Staff help students identify needs (medical, legal, counseling, academic) and refer to appropriate campus and/or community resources.

Stress management

(804) 828-0231

Individual stress management consultations are available. Stress management workshops are available upon request to student groups and classes.

Sexual health

(804) 828-9355

Education concerning sexually transmitted infections, including HIV, and contraception is provided to individual students or student groups as requested.

Residential Life and Housing

Reuban Rodriquez

Interim Director

www.housing.vcu.edu

VCU's diverse on-campus housing options are designed to meet the needs of any student who chooses to experience residential living. The VCU Residential Life and Housing Office operates a variety of 9- and 12-month living facilities, including traditional residential rooms, suite- and apartment-style buildings, and high-rise residence halls. Approximately 5,000 students choose to live on campus each year.

Residential life at VCU offers many rewards and provides students with the opportunity to gain personal experiences that supplement and complement the formal education gained in classrooms and laboratories. The Residential Life and Housing program offers students the chance to make new friends, meet likeminded academic peers, and develop leadership skills through participation in social, academic, governmental and judicial organizations.

The staff of the VCU Residential Life and Housing Office is dedicated to providing community living situations that support each student's academic, personal and extracurricular pursuits, and its goal is to offer a sense of belonging

for every residential student. Each residence hall is staffed with a coordinator of residence education, a housing manager, at least one resident director, and many in-house resident and community assistants.

New freshman students who submit a housing application by June 1 are guaranteed residential housing. Housing contracts for freshman residence halls are based on the nine-month academic calendar; housing contracts for residence facilities specified for upperclassmen are a combination of 9- and 12-month agreements. Single-semester contracts are available only to new students who enter the university in the spring semester. (See Room fees and housing costs section in "Tuition, fees and expenses.")

All residence hall rooms are furnished and are wired for Internet, cable and telephone service. For detailed information regarding all VCU residence halls, including features and furnishings, visit the Residential Life and Housing Web site at www.housing.vcu.edu, or contact the Central Housing Office, Gladding Residence Center Room 159, 711 W. Main St., P.O. Box 842517, Richmond, VA 23284-2517; telephone: (804) 828-7666.

Recreational Sports

Tom Diehl

Director

www.recsports.vcu.edu

Recreational Sports provides a variety of programs, services and facilities designed to meet the leisure and health needs of the VCU community. All currently enrolled students with valid identification are eligible to use all facilities. VCU and VCUHS staff, VCU faculty, alumni, retirees and selected contract employees are also eligible to join as members; details and fees are available in the membership section of the Recreational Sports website.

Recreational sports programs

Informal recreation

Available at all facilities and includes drop-in use of the fitness centers, gymnasiums, swimming pools, court space and the Cary Street Field.

Intramural sports

Leagues and tournaments offered throughout the year at various skill levels, as well as men's, women's and corecreational divisions. Sports include basketball, flag football, softball, racquet sports, volleyball, soccer, ultimate Frisbee and dodgeball.

Fitness programs

Programs include free group exercise classes, personal fitness training services, fitness incentive programs and instructional programs.

Outdoor Adventure Program

The OAP provides reasonably priced outdoor recreational trips. Activities such as camping, kayaking, climbing, cross-country skiing and more are offered throughout the year and facilitated by experienced trip leaders. For those planning their own outdoor activities, the Outing Rental Center offers equipment such as canoes, tents, backpacks, sleeping bags and trail guides at nominal cost. For additional information, call (804) 828-6004.

Sport clubs

Clubs give students the opportunity to train and compete against other colleges in a variety of sports. Clubs vary in focus and programming as student members manage the operation of the club and decide on club activities.

Aquatics programs

Programs are held at both Cary Street Gym and MCV Campus Recreation and Aquatic Center. Members can take advantage of learn-to-swim programs for adults and children, water exercise and incentive programs, and aquatic certification programs.

Recreational Sports facilities

Recreational Sports operates five facilities encompassing two fitness centers; two gyms with courts for basketball, volleyball, badminton and table tennis;

racquetball and squash courts; three swimming pools; a climbing wall and a bouldering wall; an artificial-turf indoor multipurpose activity center; group exercise studios; cycling studios; martial arts room; lighted, artificial-turf field; a tennis center; and a lighted outdoor basketball court. Both fitness centers offer free weights, selectorized equipment and cardiovascular equipment, as well as televisions that feature Comcast cable. Student organizations may make reservation requests for facility space when available.

Facilities include:

- Cary Street Gym, (804) 827-1100
- Cary Street Field, (804) 827-2526/827-2527
- The Outing Rental Center, (804) 828-6004.
- MCV Campus Recreation and Aquatic Center, (804) 828-6100.
- Thalhimer Tennis Center, (804) 828-1458.

Student media

Greg Weatherford

Student Media Director www.vcustudentmedia.com

Student Media encourages involvement of students in variety of student publication and broadcasting opportunities including: The Commonwealth Times (independent student press of VCU), Ink (news-features magazine), Poictesme (literary fiction journal), Amendment (literary journal), and WVCW (radio station). All media are student run enterprises.

The Student Media Center is home to these student publications and the radio station. The center is located at 817 W. Broad St., P.O. Box 842010, Richmond, VA 23284-2010; telephone: (804) 828-1058.

Student and university governance

The University Council, an advisory board to the university president, is the highest internal governance body at VCU. The council is made up of 27 faculty members, 10 students, 10 administrators, 10 classified staff members and four subcommittees: the Committee on Student Affairs, the Committee on Academic Affairs, the Committee on Faculty Affairs and the Committee on Classified Staff Affairs.

The Student Governance structure includes the Monroe Park Campus Student Government Association, the MCV Campus Student Government Association, the Programming Commission and the Student Media Commission.

The Monroe Park Campus Student Government Association is an elected body of students from the Monroe Park Campus who are organized into three branches — executive, legislative and judicial — with various committees. Legislative standing committees include academic affairs, appointments, appropriations, elections, human relations, legislative issues and civic action, publicity, and student life. The executive branch has cabinet positions that mirror legislative committees. Nonelected, at-large members are encouraged to join most of these committees. All meetings of the senate are open to the public.

The MCV Campus Student Government Association Executive officers are elected by the organization. Representatives are elected from each class in each of the health science schools on the basis of one representative per 40 students. MCV Campus SGA meetings are held monthly from September through April and are open to all MCV Campus students. The MCV Campus SGA sponsors several social functions including the MCV Campus Winter Ball and study breaks.

Additional information about the Monroe Park Campus and MCV Campus Student Government Associations may be found at www.vcu.edu/sga.

The Programming Commission coordinates programs and events planned by student organizations that specialize in major event planning. Members of the Programming Commission include: Activities Programming Board, Fall Block Step Show Planning Committee, Homecoming Planning Committee, and the InterCultural Festival Planning Committee.

The UCSC administrative office is located in University Student Commons, Room 104, 907 Floyd Ave., P.O. Box 842032, Richmond, VA 23284-2032; telephone: (804) 828-6500.

Office of Student Conduct and Academic Integrity

Karen Belanger

Director

www.students.vcu.edu/studentconduct

The Office of Student Conduct and Academic Integrity supports the educational mission of the university by educating students about appropriate behavior and fostering a community supporting academic success. The office takes the lead in the enforcement of university policies, as outlined in the "Virginia Commonwealth University Rules and Procedures" and the "VCU Honor System," providing a fair and impartial process for the adjudication of matters of student discipline. The Office of Student Conduct and Academic Integrity works in conjunction with university offices to administer the policies for Residence Hall Students and Student Off-campus Conduct, the VCU Alcohol and Drug Policy, the Student Sexual Misconduct Policy, and the Computer and Network Resources Use Policy. Rules and Procedures and the VCU Honor System, are available online at www.provost.vcu.edu/policies.

The Office of Student Conduct and Academic Integrity is located in University Student Commons, Suite 106, P.O. Box 843071; telephone: (804) 828-1963.

University policies and procedures

A number of policies and regulations at VCU affect students, and many of these are printed in the general information chapters of this bulletin. Three policy documents are of particular interest to students.

The VCU Rules and Procedures document outlines the rights, responsibilities and privileges of each member of the university community and describes cases when disciplinary action, including separation from the university, may be taken against a member of this community as a result of prohibited behavior as outlined in this document. The VCU Honor System defines academic dishonesty and provides a procedure for judging alleged violators of academic integrity. The Grade Review Procedure outlines the process whereby students may appeal grades that they feel have been assigned unfairly.

Each student is responsible for being familiar with the provisions of all university policies and regulations. The three policy documents described above are printed in full along with the VCU Insider Student Handbook and Resource Guide, which is made available on the Web at www.students.vcu.edu/insider.html.

VCU Honor System

VCU recognizes that honesty, truth and integrity are values central to its mission as an institution of higher learning.

The VCU Honor System describes the responsibilities of students, faculty and administration in upholding academic integrity, while respecting the rights of individuals to the due process offered by administrative hearings and appeals. All people enrolled in any course or program at VCU and all people supervising the learning of any student are responsible for acting in accordance with the provisions of the VCU Honor System.

The honor system gives definitions and illustrative examples of five acts which are violations of the policy, namely: cheating, plagiarism, facilitating academic dishonesty, stealing and lying. There are six penalties for students found guilty of these honor system violations. They are honor probation, assignment of grades, suspension, expulsion, revocation and other relevant sanctions.

See the VCU Honor System, published in full in the VCU Insider, www.students.vcu.edu/insider.html.

Office of Multicultural Student Affairs

Faith A. Wilkerson Interim Director www.omsa.vcu.edu

The Office of Multicultural Student Affairs is a resource for students, faculty and staff. The primary mission of OMSA is to assist traditionally underserved and/or underrepresented student populations (race, ethnicity, sexual orientation, gender) through advising, support, program development, retention efforts and promoting an appreciation of diversity throughout the campus community.

OMSA service and program components include diversity training, leadership development, referral services, cultural programming, discussion groups, collaboration and partnership development, multicultural resources and scholarship information.

The staff members of OMSA are dedicated to serving as advocates for multicultural students' concerns and interests while providing advice to a wide array of multicultural groups.

All students are urged to visit the Office of Multicultural Student Affairs located in the University Student Commons, 907 Floyd Ave., Room 215, P.O. Box 843080, Richmond, VA 23284-3080; telephone: (804) 828-6672.

Disability Support Services

Joyce Knight

Coordinator

www.students.vcu.edu/dss

VCU is committed to providing students with disabilities equal opportunities to benefit from all programs, services and activities offered.

Disability Support Services provides:

- Support services including, but not limited to, advocacy, adapted materials, alternative testing, academic and career advising.
- Recommendations for appropriate academic adjustments including exam modifications, classroom accommodations, and auxiliary aids supported by recent documentation.
- Assistance to the VCU community in complying with the provisions of the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1974
- · Liaison services between faculty and students with disabilities.
- Technical assistance to university departments.
- Current and accurate information regarding disability-related products, programs and services to current and prospective students, faculty and staff.
- Consultation with secondary schools, special educators, rehabilitation or high school counselors, parents and prospective students concerning university services for students with disabilities.
- A welcoming place for students to meet, share, study, and obtain information concerning disability related issues and opportunities.

Students with disabilities are responsible for self-identification prior to requesting services/accommodations. Students are strongly encouraged to request accommodations at least four weeks prior to the first day of classes; however, students may request accommodations at any time during enrollment at VCU. For additional information visit www.students.vcu.edu/dss.

The Disability Support Services office is located in the Student Commons, Room 102, PO Box 842529, Richmond, VA 23284-2253; telephone/TDD: (804) 828-2253; fax: (804) 828-1944.

Division of Student Affairs courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to cooperative education (COOP) courses



2014-15 Graduate and Professional Programs Bulletin

Global Education Office

817 West Franklin Street P.O. Box 843043 Richmond, Virginia 23284-3043 Phone: (804) 828-8471

Fax: (804) 828-2552 www.global.vcu.edu

R. McKenna Brown

Executive Director

The Virginia Commonwealth University Global Education Office promotes a variety of faculty and student activities in a global context. GEO's mission is to advance the internationalization of the University in cooperation with the VCU academic programs, as well as with other administrative offices. GEO currently offers programs and services in faculty exchanges, university overseas linkages and agreements of cooperation, education abroad and student exchanges, international student and scholar advising, and international student recruitment and admissions. Additionally GEO offers an intensive English Language Program.

The executive director advises faculty, departments, schools and the college in their efforts to expand their international activities and linkages. The executive director also serves as the initial contact for off-campus groups and agencies requesting information on international activities at the university as well in drafting agreements with oversees institutions, in consultation with the appropriate VCU constituencies.

Education Abroad

Stephanie Davenport

Director

Founded in the belief that an international and multicultural perspective is invaluable to university students today, VCU Education Abroad encourages students from all majors and fields of interest to include study abroad and international exchange as part of their educational career. The benefits of education abroad are many. Students will learn to understand and function in different cultures, thereby developing a broader understanding of the ways the world works; increase knowledge of and facility in a foreign language; understand differences in educational styles and systems; and increase employment marketability upon graduation.

To accomplish these goals successfully, students are encouraged to study in another cultural setting for a summer, semester or full academic year as part of their degree program. VCU Education Abroad was established to assist students in accomplishing these goals by providing information, advising and by administering study abroad programs. VCU offers the programs listed below to encourage students to participate in overseas and external study.

Participants must be in good standing with the university with two full semesters of consecutive, successful full-time enrollment prior to participation. Please note that individual program requirements may vary.

Program offerings

VCU Summer Study Abroad

Each year faculty members lead short-term summer study with intensive instruction in an international context. Students may elect courses ranging from an intensive foreign language experience to art, business, and humanities programs. New programs are created every year in countries as diverse as Barbados, Spain, Guatemala, Peru, Italy, Germany, Mexico, France and China.

International Student Exchange Program

International Student Exchange Program is a network of 275 colleges and universities in 39 countries and provides exchange opportunities for a summer, semester or academic year. ISEP is well-suited for mature, independent students who wish to be fully immersed into the host culture. Students usually enroll directly into their host university and take classes in the host language. A wide variety of options to study in English is also available. ISEP offers an affordable option to study abroad — many of its locations' charges are based on VCU tuition, fees, and room and board.

Departmental exchanges

VCU has negotiated a number of direct student exchange agreements arising out of specific interest in the university community. Students pay their tuition and fees at VCU, and enroll directly in the chosen host university.

Independent study abroad

Independent study abroad is for students who wish to study in a field not covered by any of the above study-abroad options. Students may elect to participate in a program offered by another university or organization. VCU Education Abroad will assist students in identifying and applying to the program, maintaining their VCU status while away, and securing financial aid where appropriate. All programs must be approved by VCU.

Except for summer programs offered for VCU credit, all credit received through study abroad will appear on the students' transcripts as transfer credit. Students must earn the equivalent of a "C" or higher for credit to be awarded. Grades are not calculated into the GPA, unless a student is attempting to graduate with honors.

English Language Program

Lisse Hildebrandt

Interim Director

The English Language Program offers an intensive university-preparation language program for nonnative speakers of English and serves international students, U.S. citizens, permanent residents and refugees.

Core courses are offered at 10 levels of instruction – beginning through advanced – in five eight-week sessions per year. Core courses include: writing and grammar, reading and vocabulary, listening, speaking and pronunciation. Additional elective courses in American language and culture, as well as extracurricular learning opportunities, such as conversation partners and cultural/educational activities, are available to students.

Admission to the ELP may be recommended by the VCU Office of Undergraduate Admissions and International Admissions Office at the time of the application review. Students who want only English-as-a

-second-language courses may apply directly to the program.

Placement in the ELP is based on the results of the English Language Placement Examination, a three-hour test in four parts: listening, reading, writing and an oral interview. Students receive their test results by meeting individually with an adviser, who makes recommendations, answers questions and registers students in the appropriate ELP course(s).

More information

For more information, students may contact the English Language Program Office at 817 W. Franklin St.; by phone at (804) 828-2551; by fax at (804) 828-2552 or by e-mail at geo@vcu.edu.

Immigration Services

Ingrid A. Mercer

Director

Immigration Services serves international students and scholars by keeping them informed of all U.S. immigration laws and regulations. This unit provides assistance in obtaining appropriate visas and information and counseling to guide students (F-1), scholars, researchers, visitors (J-1), temporary specialized employees (H1B and TN), and all dependents within the university community so that they can successfully pursue and complete their academic goals.

International Admissions

Blair W. Brown

Director

VCU encourages qualified international students to seek admission to the university through the International Admissions Office. For complete information and application materials, students should write, fax, e-mail or download the application from the Web and contact International Admissions, Virginia Commonwealth University, 817 W. Franklin St., P.O. Box 843043, Richmond, VA 23284-3043, USA; call (804) 828-6016, e-mail vcuia@vcu.edu or access the Web at www.global.vcu.edu/students/admissions.

Applicants must complete the International Application for Undergraduate Admission form and submit academic records that demonstrate successful completion of secondary school education — usually 12 years of pre-university study in their own country.

As required by U.S. regulations and by VCU admission policies, nonimmigrant applicants must demonstrate satisfactory academic achievement, adequate English proficiency, and the ability to finance all educational and living expenses.

Applicants can refer to the freshman admission guidelines, transfer admission guidelines and admission procedures in the "Admission to the University" section of this bulletin for specific program requirements.

VCU is unable to provide financial support for international undergraduate students. Therefore, an applicant who needs a student visa must present documented evidence of available financial support to cover living and educational expenses while studying at VCU.

English language proficiency requirements

To ensure maximum benefits from academic study at VCU, all nonnative English-speaking applicants, regardless of immigration status, must provide evidence of English language proficiency before admission and/or before enrollment in the university. English language proficiency is evaluated on factors such as amount and type of formal American education, TOEFL scores and Scholastic Aptitude Test scores.

In general, VCU requires a minimum score of 550 (paper-based), 213 (computer-based) or 80 (Internet based) on TOEFL for admission for undergraduate students. The university reserves the right to require additional testing and study in the VCU English Language Program prior to full-time enrollment in university courses.

Nonimmigrants (students with temporary U.S. visas)

Because of time constraints involved in processing international applications and obtaining visas, prospective international undergraduate applicants should submit all required admission and financial credentials at least three months before they plan to enroll. Applicants who are unable to meet the document submission deadline may not have time to obtain the necessary visa for study at VCU.

Proof of current visa type must be submitted to the International Admissions office before enrollment, unless the applicant is requesting an F-1 or J-1 visa. Students possessing F-1 or J-1 visas admitted to VCU must submit copies of all immigration documents to the VCU International Student Adviser before enrolling in classes.

Immigrants (permanent residents, refugees and asylees)

Since immigrant applicants usually are in the U.S. at the time an application is submitted, these students must meet the same application deadlines as American citizens. Immigrants should submit their applications to the Office of Undergraduate Admissions. If educated in the U.S., immigrant applicants are considered under the same academic policies applicable to U.S. citizens. If educated outside this country, the same academic records are required as those for nonimmigrant applicants.

VCU requires detailed information about U.S. immigration status. Proof of permanent residency or of refugee and asylee status must be submitted with the admission application.

International Student Recruitment

Robert A. Wood

Associate Director

Empowered by presidential initiatives and strong institutional commitment to internationalize Virginia Commonwealth University, the Global Education Office recruitment staff has embarked upon a proven in-depth international student and scholar recruiting effort. The four-year-old recruiting initiative has been successful, resulting in a 67 percent increase in the university's international student enrollment from 640 students in 2004 to more than 1,100 in the fall of 2006

VCU representatives travel overseas to attend educational fairs, and visit secondary schools and advanced degree institutions to recruit highly qualified undergraduate and graduate students for all disciplines. The quality and scope of majors in VCU's liberal arts college and 15 schools, as well as the welcoming nature of the international admissions policy, make VCU a strong and attractive choice for American education for many students. GEO international recruiting also engages students via the VCU websites and other electronic and media outlets. Ongoing contacts with school and university counselors and private education admissions are a priority.

Focus for travel has been to the emerging international student markets in the areas of the Middle East and Gulf regions, the Far East and Pacific Rim countries, southern Asia and Latin America. The office also takes advantage of the university's close proximity to Washington, D.C., to visit and contact embassy educational ministries for access to scholarship students. International recruiting

by the Global Education Office plays a vital role in diversifying and enhancing the international community at VCU and in the greater-Richmond area.

International Student and Scholar Services

Pamela O. Haney

Director

Robert A. Wood

Coordinator of Student and Scholar Services and Associate Director of International Recruitment

International students face many challenges when entering a new country. GEO's International Student and Scholar Services offers assistance and guidance to students as they adjust to a different culture and pursue their educational goals. Student and Scholar coordinators help with pre- and post-arrival concerns, such as airport pick-ups, housing, banking, health insurance and other orientation activities.

Support continues throughout an international student's stay at VCU. The Student and Scholar Services staff assists, advises and refers students with nonacademic issues, including personal, legal, health and cultural. Academic and immigration matters are referred to appropriate advisers. The coordinators also confer with VCU faculty, staff and university officials regarding student concerns.

A student's American experience extends beyond the classroom. Student and Scholar Services offers educational, cultural and social activities that promote international understanding and community. The weekly International Student Coffee Hour is a casual gathering where students meet and make friends, practice spoken English and learn about upcoming VCU activities. Students are encouraged to participate in other monthly GEO-sponsored activities, such as camping, skiing, visiting historical sites and tours of Washington, D.C., or New York City.

GEO also recognizes the importance of a support network, particularly when students are far from family and friends. In addition to the International Student Coffee Hour and monthly activities, Student and Scholar Services also provides opportunities for students to develop relationships with those in the VCU and Richmond communities. American volunteers extend the hand of friendship as conversation partners, friendship partners and hosts for holiday visits.

For information or assistance, please contact International Student and Scholar Services, Global Education Office, 817 W. Franklin St., at (804) 828-0808, by fax at (804) 828-2552, or by e-mail at rawood@vcu.edu or pohaney@vcu.edu.



2014-15 Graduate and Professional Programs Bulletin

Office of Research

800 East Leigh Street P.O. Box 980568 Richmond, Virginia 23298-0568 Phone: (804) 827-2262

Fax: (804) 828-2051 www.research.vcu.edu

Francis L. Macrina, Ph.D.

Vice President for Research

The mission of the Virginia Commonwealth University Office of Research is to create an environment that enables our investigators to: 1) effectively compete for research funding, 2) responsibly conduct research in compliance with mandated policies and 3) broadly disseminate knowledge gained and discoveries made.

Research universities provide the nexus of discovery, education and service. The research process evolves into scholarly publication, enlightening histories, interpretative arts, lifesaving drugs and remarkable innovations ranging from nanotechnology to macroeconomics. Each day VCU researchers make progress toward improving our quality of life and our understanding of the world around us.

Research at VCU provides an incubator for training new scholars and a new generation of students who understand where and how knowledge is formed. No matter their chosen career, all researchers benefit from the curiosity instilled and the recognition that learning is a lifelong process.

The research enterprise at VCU has made substantial forward steps in recent years, doubling the sponsored award base, renovating laboratories, rebuilding the research subjects' protection program and investing in state-of-the-art animal care equipment and facilities.

The VCU Office of Research seeks to partner with faculty in all schools and departments as they seek funding, plan studies, establish collaborations, calculate budgets, submit grant applications, negotiate industry contracts and secure patents and licensing agreements. Skilled staff within each of the major divisions — sponsored programs administration, research subjects protection, animal research, technology transfer, industry partnerships, and education and oversight — look forward to helping VCU faculty in all realms of the research process.

Affiliated research institutes include the Center for Clinical and Translational Research (and its Research Incubator), the Institute for Drug and Alcohol Studies; the Philips Institute of Oral and Craniofacial Molecular Biology; the Virginia Institute for Psychiatric and Behavioral Genetics; the Institute for Structural Biology and Drug Discovery; and the Institute for Women's Health.

Center for Clinical and Translational Research

1200 East Clay Street P.O. Box 980261 Richmond, Virginia 23298-0261 Phone: (804) 827-1531 Fax: (804) 827-1510 www.cctr.vcu.edu

John N. Clore, M.D.

Director

The Center for Clinical and Translational Research at Virginia Commonwealth University provides the necessary longitudinal and cross-disciplinary network, culture and infrastructure for identifying promising discoveries made in the laboratory, testing them in animals and developing trials and studies for humans.

Joint participation of researchers from across the university is critical to this mission. Partnerships with foundations and industry — particularly the support of the Virginia BioTechnology Research Park — is also crucial for moving these discoveries to the clinic. At the same time, mutually beneficial partnerships with community practitioners, community organizations and patients enhance the adoption of evidence-based best practices in general clinical practice and thus deliver improved medical care to the region.

The center offers a corridor in which participants in the translational research continuum can meet, interact and advance each others' missions. Bench and computer scientists will learn from animal models and clinician observations. Clinical researchers will recognize the need for communication with basic scientists to direct experimental design. Community practitioners will better understand their role in informing the clinical research process and participating in

pragmatic clinical trials. Patients will develop a higher comfort level with "medical research"

The center also serves as the administrative unit for the interdisciplinary graduate degrees in clinical and translational sciences.

Research Incubator

The Clinical and Translational Research Incubator is designed to serve as a hub for resources and networking opportunities for established researchers and junior clinical investigators who are working on novel, interdisciplinary and collaborative clinical research at VCU. The RI will support its investigators by coordinating and optimizing current resources and by developing innovative new resources to facilitate the research process. It is anticipated that faculty researchers from the schools of Allied Health Professions, Dentistry, Education, Engineering, Medicine, Nursing, Pharmacy and Social Work, as well as the College of Humanities and Sciences, will access services at the RI.

Clinical and translational research courses

Descriptions for all courses offered by the university may be accessed through the online courses database at www.pubapps.vcu.edu/vcucourses. You may search by unit, subject or keyword, as well as by degree level.

Follow this link to clinical and translational research (CCTR) courses.

Clinical and Translational Sciences, Doctor of Philosophy (Ph.D.) with a concentration in cancer and molecular medicine

Graduate program director

Teraya M. Donaldson, Ph.D. Education program coordinator Center for Clinical and Translational Research cctred@vcu.edu (804) 828-6671

Additional contact

Risham A. Qureshi Administrative assistant Center for Clinical and Translational Research qureshira@vcu.edu (804) 628-5414

Program website: cctr.vcu.edu/education

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Clinical and Translational Sciences, Doctor of Philosophy (Ph.D.), general curriculum

Clinical and Translational Sciences, Doctor of Philosophy (Ph.D.), with a concentration in psychiatric, behavioral and statistical genetics Clinical and Translational Sciences, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Clinical and Translational Sciences, Doctor of Philosophy (Ph.D.) with a concentration in cancer and molecular medicine			
Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
Ph.D.	Fall (preferred); rolling admissions	Applications received by Jan 10 receive priority	GRE, TOEFL if relevant

In addition to the general admission requirements of the VCU Graduate School all applicants must provide the following:

 A statement of purpose for application to the program. The document should be 1.5 or double-spaced with one-inch margins, in a font height no smaller than 11 points. The statement of purpose should cover the following issues in two to five pages:

- a. Why the applicant wishes to pursue a Ph.D. in the Clinical and Translational Sciences with a concentration in cancer and molecular medicine
- Background experience relevant to pursuing a Ph.D. in the concentration in cancer and molecular medicine
- Research interests and potential faculty mentors with whom the individual would want to work
- d. Description of the applicant's career goals
- Scores from the Graduate Record Examination (GRE). Applicants must score at the 75th percentile or above in all sections of the GRE.
- 6. International applicants must also provide, to the VCU Global Education Office scores from the Test of English as a Foreign Language or International English Language Testing System
- 7. Please submit curriculum vitae or resume to:

Susan E. Simmons Center for Clinical and Translational Research P.O. Box 980261 Richmond, VA 23298-0261

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The doctoral program in clinical and translational sciences offers a general curriculum, an interdisciplinary concentration in psychiatric, behavioral and statistical genetics and a concentration in cancer and molecular medicine.

Students who pursue the doctoral program in clinical and translational sciences will be grounded in a relative substantive area and be prepared to integrate data from multiple disciplines, have strong communication and computational skills and be sufficiently flexible to easily move among different projects and research venues

Student learning outcomes

Students who complete the program should achieve the following core competencies:

- Understand, integrate and apply relevant biomedical biobehavioral concepts and theoretical frameworks to research
- 2. Comprehend, select and apply the appropriate study design to address specific health issues
- Critically review the scientific literature by applying sound research knowledge and principles to the review
- Apply data collection processes and information technology to create, maintain and secure databases and other information
- 5. Apply ethical principles to study design, data collection and dissemination

- Devise an analysis plan (statistical methodology) and analyze data using methods appropriate for the study design and type of data to be obtained
- 7. Identify, interpret and implement relevant laws, regulations and policies related to specific studies and/or programs
- 8. Plan, incorporate and use appropriate methods for the dissemination and adoption of clinical research findings
- Manage as a clinical translational research team leader the fiscal, personnel, facilities, regulatory assets and scientific integrity of a funded clinical research program
- 10. Use knowledge and skills related to leadership, team-building, negotiation, conflict resolution, group process and principles of ethical decision-making to manage a research team and build transdisciplinary collaboration
- 11. Identify and coordinate institutional resources needed to carry out theoretically based and scientifically sound high-quality funded research
- 12. Effectively communicate specialist-to-specialist
- Effectively communicate specialist knowledge to nonspecialists and laypersons

Degree requirements

All students are expected to be actively engaged in research throughout the duration of the Ph.D. program. Students are generally admitted under a mentorship model, meaning that they will begin research under the supervision of faculty advisers to whom their research interests most closely align. Other didactic experiences include the weekly seminar series (both at the VIPBG and in external departments) as well as participation in workshops and scientific meetings of relevance to the student's research area.

The curriculum provides a strong grounding in fundamental concepts while emphasizing aspects of research design and technology that are broadly applicable across disciplines in industrial, government and academic settings. A series of elective courses will then provide an advanced base of knowledge focused on a student's areas of interest.

In addition to general VCU Graduate School graduation requirements, students are required to meet the following:

- 1. Credit hour requirements: Students are required to complete course work in core and elective courses and to conduct significant research. In order to earn the Ph.D., students must complete a minimum of 54 credit hours: 32 core and elective courses as well as 22 in directed and dissertation research that provide a sound foundation in clinical and translational research principles. Students will also participate in seminar and workshop experiences that place them in the midst of the research process from theoretically based hypothesis generation through grant writing, study conduction, and, ultimately, data analysis and manuscript preparation. This program also includes a rigorous interdisciplinary research component comprising directed research and dissertation hours.
- 2. Transfer and M.S. credit hours: Graduate-level course work completed prior to matriculation into the program, including course work taken in another program at VCU or at another institution, shall be evaluated to determine whether it can be used to fulfill degree requirements of this program. Transfer of credit hours will be limited to those allowed by the university. A minimum grade of B is required for credit hours to transfer.
- 3. Grade requirements: Degree applicants must achieve an overall GPA of 3.0 (B) with a grade of C in no more than two courses per the VCU Graduate Bulletin. The GPA for graduation shall be based on all graduate courses attempted after acceptance into the program. Students who receive a grade lower than a B in any of the required core courses will be subject to remedial action as determined by their advisory committee in conjunction with the program director to ensure that there is adequate mastery of the material. All remedial action must be undertaken and completed to the committee's satisfaction before the student is eligible to begin their qualifying exams.
- 4. Research advisers and committee: The director of the CCTR education program or the director's designee will assist the student with initial course selection and provide advice concerning the program. All students should select their master's or doctoral co-advisers and finalize the composition of their research advisory committee prior to the end of the second semester of study.

- 5. The student's co-advisers shall provide each student enrolled in the master's or doctoral program with individualized recommendations regarding course work selection, workshop experiences and the direction of their research. It is essential that each student be comprehensively assessed in the area of their methodological and research background. Particularly in the case of those pursuing the Ph.D., recommendations will be made to ensure that each student has acquired the needed substantive research background necessary for doctoral-level work. Thus, the total credit hours required for graduation will be determined on a case-by-case basis by the individual student's research advisory committee.
- 6. The committee will consist of a minimum of five members, all of whom must be members of the VCU graduate faculty. Note: Individuals who are not already graduate faculty members must apply to the dean of the Graduate School for temporary affiliate membership. The composition of the research advisory committee shall be such that the significant areas of the student's research focus are represented. To foster the interdisciplinary intent of this degree program, at least one member of the committee shall be from a school other than those of the student's co-advisers. Final approval of each student's advisory committee membership shall rest with the CCTR Education Program committee.
- Admission to candidacy for the Ph.D. Before admission to candidacy for the Ph.D., students must have:
 - a. Completed all required course work (as noted above, through a comprehensive screening process students will have been evaluated to assure that they have grounding in a relevant substantive content area and have taken the needed course work in statistics, methodology and research so that they are able to pursue doctoral-level research)
 - b. Successfully completed an oral examination
- 3. Oral examination: Upon successful completion of all required didactic course work, not including seminars and workshops and submission and acceptance of a research proposal, students shall take an oral examination administered by the student's research advisory committee. The exam shall be based on a defense of the student's proposed dissertation research project, which shall be constructed in the format of an NIH grant submission and all other subject areas deemed appropriate by the committee. All advisory committee members must vote on the student's performance as either Pass or Fail. A student may pass the exam with no more than one negative vote. Upon successful completion of the oral examination, the student is officially entered into candidacy and permitted to refine their proposed dissertation research and submit it for final committee approval before initiating the project (see below). An unsuccessful oral examination shall require reexamination within a time period determined by the committee. Only one oral re-examination is permitted.
- 4. Dissertation research/proposal: Students must propose and conduct a substantial original clinical and/or translational investigation under the supervision of the research advisers and advisory committee. The student can refine the research proposal which served as the foundation of their oral examination in consultation with the research advisers and advisory committee or propose a new novel research proposal. The proposal, which shall be constructed in the format of an NIH grant submission, should include information on the general purpose of the research, background information on the research topic (including a review of the relevant literature), a rationale for the project, a statement of the hypotheses to be investigated or research questions to be answered, and proposed methods and statistical analyses. Once the student has received the committee's approval, they can initiate their dissertation research.
- 5. Dissertation research project: The research project should represent a significant contribution to the body of knowledge in its field and should be deemed publishable in refereed journals. The emphasis of the research conducted by students in this program shall be on clinical and translational interdisciplinary research, incorporating two or more disciplines as well as a systems approach. This emphasis will be fostered by the requirement of having at least one faculty member on the research advisory committee from a school or college different from that of the research advisers, thereby exposing students to different perspectives on the same problem and assisting students in developing multidisciplinary approaches to their research.
- 6. Dissertation defense: Students shall prepare a written dissertation describing the completed research using a format approved by the VCU Graduate School. An oral defense of the dissertation, under the direction of the

research advisory committee and open to all faculty members, shall be scheduled to examine the student's research, dissertation documentation and underlying fundamental knowledge across the disciplines encompassed by the student's research. An announcement of the oral defense, including the candidate's name, dissertation title and the day, place and time of the defense, shall be made at least 10 working days in advance of the defense. Following the defense, all committee members shall vote on the acceptability of the dissertation. A student may pass the oral defense, signifying that the research advisory committee has accepted the dissertation, with no more than one negative vote. Upon successful completion of the defense and dissertation, the student may apply for graduation from Virginia Commonwealth University with the degree of Doctor of Philosophy in Clinical and Translational Sciences.

Research advisers and committee

Each student in the program will have both a research and a clinical mentor (these could be the same or different faculty members). This team-based mentoring approach will facilitate the translational aspects of the Ph.D. students' projects and may actually serve to stimulate new translational projects and collaborations at VCU. The research mentors in the program will be chosen based on demonstrated research expertise in the area of cancer or molecular medicine, excellent mentoring skills, and research funding to support the Ph.D. student. Clinical mentors will be chosen based on clinical expertise and mentoring excellence. Through the clinical mentor, the trainee will have opportunities to be exposed to clinical practice, including clinics and surgeries, clinical laboratories, the complexities of clinical trials, and other clinical activities. The clinical activities are expected to consist of approximately one hour/week on average for Ph.D. students, but would be more intensive for M.D./Ph.D. students, in keeping with the existing requirements for that program. Both the research and clinical mentor would be on the thesis committee, which would comprise a total of five faculty members, at least three of whom are CMM faculty members. For M.D./Ph.D. students, their clinical mentors will be the same faculty member serving as their Foundations of Clinical Medicine preceptors. The students' mentors and thesis committee will advise the students as they prepare career development plans in the second year in the program. The career development plan will be required because translational science is by definition an interdisciplinary and novel career path for students.

Qualifying examination

Students in good academic standing who have completed all of their required academic core course work will spend the summer after the second year preparing for the qualifying exam. The qualifying exam will consist of writing a review paper of no more than 30 double-spaced pages, excluding references. In keeping with the interdisciplinary nature of the program, the review paper must demonstrate mastery across the core areas represented in CCM. The topic of the review paper should be developed by students in consultation with their advisers. The title of the review paper, along with a short abstract (no longer than one single-spaced page) describing the proposed content should be submitted to the concentration program director by June 15 for review by the qualifying exam committee. The QEC will review the proposal to ensure that the topic of the review paper is appropriate in that it allows the student to demonstrate command of the literature and interdisciplinary breadth. The committee will make decisions about adequacy of the review paper and, if necessary, work with the student to make revisions within approximately 14 days. Once the topic has been approved by the QEC, the student may begin writing. The review paper must be the student's own work. Drafts may not be reviewed by the student's adviser or other faculty, fellows or students. The final review paper must be submitted to the advisory committee by Aug. 1.

An oral examination of the paper administered by the student's advisory committee and the QEC must be scheduled to take place approximately two weeks after submission to evaluate the student's command of the material and to give the committee opportunity to ask questions and provide feedback. A pass/fail decision will be made at that time. Unsuccessful completion of the qualifying exam will require re-examination within a period of time determined by the committee and the program director. The content of the re-examination will also be determined by the committee and program director on an individual basis. In some cases this could involve a revision of the review paper or particular sections; in other cases, it may involve a repeat of the entire process including selection of a new topic and submission of a new review paper and/or repeat of the oral defense. Only one reattempt to pass qualifying exams is permitted. Students who do not pass their qualifying exams upon their second attempt will be dismissed from the program. Upon successful completion of the oral examination, the student is then officially

entered into candidacy for the Ph.D. and permitted to refine their proposed dissertation research and submit it for final committee approval before initiating the project (see below).

Admission to Ph.D. candidacy

Students will have written and oral qualifying examinations, based on writing a grant proposal describing their proposed thesis research and orally defending the proposal with their thesis committee. Before admission to candidacy for the Ph.D., students must have (1) completed all required course work as described above and (2) successfully completed a qualifying exam.

Dissertation proposal defense

Students who have completed the qualifying exam and the second year project are eligible to propose and defend their dissertation. The proposal should be constructed in the format of an NIH grant submission. The proposal must consist of an original research idea generated by the student in consultation with their adviser. The dissertation proposal defense should generally be completed during the fall semester of the third year. Students shall prepare a written dissertation describing the completed research using a format approved by the VCU Graduate School. An oral defense of the dissertation, under the direction of the research advisory committee and open to all faculty members, shall be scheduled to examine the student's research, dissertation documentation and underlying fundamental knowledge across the disciplines encompassed by the student's research. An announcement of the oral defense, including the candidate's name, dissertation title, and the day, place and time of the defense, shall be made at least 10 working days in advance of the defense.

Following the defense, all committee members shall vote on the acceptability of the dissertation. A student may pass the oral defense, signifying that the research advisory committee has accepted the dissertation, with no more than one negative vote. Upon successful completion of the defense and dissertation, the student may apply for graduation from Virginia Commonwealth University with the degree of Doctor of Philosophy in Clinical and Translational Sciences with a concentration in cancer and molecular medicine.

Time limit

All requirements for the Ph.D. must be completed within eight years from the date of admission to the degree program.

Concentration in cancer and molecular medicine

The concentration in cancer and molecular medicine is a translational and interdisciplinary Ph.D. curriculum in the Center for Clinical and Translational Research. The goal of the program is to train students to perform translational research in cancer and molecular medicine. This requires a background and the necessary vocabulary to communicate with both scientists and clinicians and the research skills to be able to bridge bench science and clinical science. The marriage of cancer and molecular medicine blends established cancer biology with an emerging field, molecular medicine. The CMM concentration serves as an educational program for Ph.D. as well as M.D./Ph.D. students encompassing the research objectives of the VCU Massey Cancer Center, the VCU Institute of Molecular Medicine and the CCTR.

In addition to the core courses, elective courses will be recommended to Ph.D. students based on their research. Students will develop an individualized curriculum with the guidance of the program director, based on their research interests and career goals. By the end of the first semester, each student will develop a complete curriculum plan, to be approved by the program director. This will be reviewed by the student's thesis committee in the second fall semester.

Curriculum requirements

Courses	Credit hours
Required courses	24
BIOS/STAT 543 Statistical Methods I	3
BIOS 571 Clinical Trials	3
CCTR 520 Fundamentals of Research Regulation	2
CCTR 550 Foundations of Clinical and Translational Research: The Intersection of Theory and Application	3
CCTR 690 Research Seminar in Clinical and Translational Sciences	8
CCTR 801Research Practicum I	1

CCTR 802Research Practicum II	1
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IBMS 680 Proposal Preparation	1
OVPR 601 Scientific Integrity, OVPR 602 Responsible	1
Scientific Conduct or OVPR 603 Responsible Conduct of	
Research	
PHIS 691 Special Topics in Physiology (science and disease)	1
Electives (chosen with approval of research advisory committee)	12
BIOC 605 Molecular Biology	3
BIOC/MICR 503 Biochemistry, Cell and Molecular Biology	5
BIOC/MICR 504 Biochemistry, Cell and Molecular Biology	5
EPID 620 Cancer Epidemiology	3
EPID 650 Epidemiologic Methods for Research	3
EPID 651 Epidemiologic Methods for Research	3
EPID 652 Advanced Epidemiologic Methods and Data Analysis	3
HGEN 614 Pathogenesis of Human Genetic Disease	3
MICR 684 Molecular Biology of Cancer	3
PHTX 625 Cell Signaling and Growth Control	3
Research	variable
110,000.00	,
CCTR 697 Directed Research in Clinical and Translational	variable
Sciences	
CCTR 898 Dissertation Research in Clinical and Translational	variable
Sciences	

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Clinical and Translational Sciences, Doctor of Philosophy (Ph.D.) with a concentration in psychiatric, behavioral and statistical genetics

Graduate program director

Teraya M. Donaldson, Ph.D.
Education program coordinator
Center for Clinical and Translational Research

cctred@vcu.edu (804) 828-6671

Additional contact

Risham A. Qureshi Administrative assistant Center for Clinical and Translational Research qureshira@vcu.edu (804) 628-5414

Program website: cctr.vcu.edu/education

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Clinical and Translational Sciences, Doctor of Philosophy (Ph.D.), general curriculum

Clinical and Translational Sciences, Doctor of Philosophy (Ph.D.) with a concentration in cancer and molecular medicine Clinical and Translational Sciences, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Clinical and Translational Sciences, Doctor of Philosophy (Ph.D.) with a concentration in psychiatric, behavioral and statistical genetics

Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
Ph.D.	Fall (Preferred)	Applications received	GRE, TOEFL if
	Rolling admissions	by Jan 10 receive	relevant
		priority	

In addition to the general admission requirements of the VCU Graduate School all applicants must provide the following:

- A statement of purpose for application to the program. The document should be 1.5 or double-spaced with one-inch margins, in a font size no smaller than 11 points. The statement of purpose should cover the below issues in two to five pages:
 - a. Why the applicant wishes to pursue a Ph.D. in the CTS-PBSG concentration
 - Background experience relevant to pursuing a Ph.D. in the CTS-PBSG concentration
 - Research interests and potential faculty mentors with whom the individual would want to work
 - d. Description of the applicant's career goals
- Scores from the Graduate Record Examination (GRE). Applicants must score at the 75th percentile or above in all sections of the GRE.
- International applicants must also provide, to the VCU Global Education
 Office scores from the Test of English as a Foreign Language or International
 English Language Testing System
- 7. Please submit curriculum vitae or resume to:

Susan E. Simmons Center for Clinical and Translational Research P.O. Box 980261 Richmond, VA 23298-0261

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and

Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The doctoral program in clinical and translational sciences offers a general curriculum, an interdisciplinary concentration in psychiatric, behavioral and statistical genetics and a concentration in cancer and molecular medicine.

Students who pursue the doctoral program in clinical and translational sciences will be grounded in a relative substantive area and be prepared to integrate data from multiple disciplines, have strong communication and computational skills and be sufficiently flexible to easily move among different projects and research venues

Student learning outcomes

Students who complete the program should achieve the following core competencies:

- Understand, integrate and apply relevant biomedical biobehavioral concepts and theoretical frameworks to research
- Comprehend, select and apply the appropriate study design to address specific health issues
- 3. Critically review the scientific literature by applying sound research knowledge and principles to the review
- Apply data collection processes and information technology to create, maintain and secure databases and other information
- 5. Apply ethical principles to study design, data collection and dissemination
- Devise an analysis plan (statistical methodology) and analyze data using methods appropriate for the study design and type of data to be obtained
- 7. Identify, interpret and implement relevant laws, regulations and policies related to specific studies and/or programs
- Plan, incorporate and use appropriate methods for the dissemination and adoption of clinical research findings
- Manage as a clinical translational research team leader the fiscal, personnel, facilities, regulatory assets and scientific integrity of a funded clinical research program
- 10. Use knowledge and skills related to leadership, team-building, negotiation, conflict resolution, group process and principles of ethical decision-making to manage a research team and build transdisciplinary collaboration
- 11. Identify and coordinate institutional resources needed to carry out theoretically based and scientifically sound high-quality funded research
- 12. Effectively communicate specialist-to-specialist
- Effectively communicate specialist knowledge to nonspecialists and laypersons

Degree requirements

All students are expected to be actively engaged in research throughout the duration of the Ph.D. program. Students are generally admitted under a mentorship model, meaning that they will begin research under the supervision of faculty advisers to whom their research interests most closely align. Other didactic experiences include the weekly seminar series (both at the VIPBG and in external departments) as well as participation in workshops and scientific meetings of relevance to the student's research area.

The curriculum provides a strong grounding in fundamental concepts while emphasizing aspects of research design and technology that are broadly applicable across disciplines in industrial, government and academic settings. A series of elective courses will then provide an advanced base of knowledge focused on a student's areas of interest.

In addition to general VCU Graduate School graduation requirements, students are required to meet the following:

- 1. Credit hour requirements: Students are required to complete course work in core and elective courses and to conduct significant research. In order to earn the Ph.D., students must complete a minimum of 54 credit hours: 32 core and elective courses as well as 22 in directed and dissertation research that provide a sound foundation in clinical and translational research principles. Students will also participate in seminar and workshop experiences that place them in the midst of the research process from theoretically based hypothesis generation through grant writing, study conduction, and, ultimately, data analysis and manuscript preparation. This program also includes a rigorous interdisciplinary research component comprising directed research and dissertation hours.
- 2. Transfer and M.S. credit hours: Graduate-level course work completed prior to matriculation into the program, including course work taken in another program at VCU or at another institution, shall be evaluated to determine whether it can be used to fulfill degree requirements of this program. Transfer of credit hours will be limited to those allowed by the university. A minimum grade of B is required for credit hours to transfer.
- 3. Grade requirements: Degree applicants must achieve an overall GPA of 3.0 (B) with a grade of C in no more than two courses per the VCU Graduate Bulletin. The GPA for graduation shall be based on all graduate courses attempted after acceptance into the program. Students who receive a grade lower than a B in any of the required PBSG core courses will be subject to remedial action as determined by their advisory committee in conjunction with the PBSG program director to ensure that there is adequate mastery of the material. All remedial action must be undertaken and completed to the committee's satisfaction before the student is eligible to begin their qualifying exams.
- 4. Research advisers and committee: The director of the CCTR education program or the director's assigned designee will assist the student with initial course selection and provide advice concerning the program. All students should select their master's or doctoral co-advisers and finalize the composition of their research advisory committee prior to the end of the second semester of study.
- 5. The student's co-advisers shall provide each student enrolled in the master's or doctoral program with individualized recommendations regarding course work selection, workshop experiences and the direction of their research. It is essential that each student be comprehensively assessed in the area of their methodological and research background. Particularly in the case of those pursuing the Ph.D., recommendations will be made to ensure that each student has acquired the needed substantive research background necessary for doctoral-level work. Thus, the total credit hours required for graduation will be determined on a case-by-case basis by the individual student's research advisory committee.
- 6. The committee will consist of a minimum of five members, all of whom must be members of the VCU graduate faculty. Note: Individuals who are not already graduate faculty members must apply to the dean of the Graduate School for temporary affiliate membership. The composition of the research advisory committee shall be such that the significant areas of the student's research focus are represented. To foster the interdisciplinary intent of this degree program, at least one member of the committee shall be from a school other than those of the student's co-advisers. Final approval of each student's advisory committee membership shall rest with the CCTR Education Program committee.
- Admission to candidacy for the Ph.D. Before admission to candidacy for the Ph.D., students must have:
 - a. Completed all required course work (as noted above, through a comprehensive screening process students will have been evaluated to assure that they have grounding in a relevant substantive content area and have taken the needed course work in statistics, methodology and research so that they are able to pursue doctoral-level research)
 - b. Successfully completed an oral examination
- 3. Oral examination: Upon successful completion of all required didactic course work, not including seminars and workshops and submission and acceptance of a research proposal, students shall take an oral examination administered by the student's research advisory committee. The exam shall be based on a defense of the student's proposed dissertation research project, which shall be

- constructed in the format of an NIH grant submission and all other subject areas deemed appropriate by the committee. All advisory committee members must vote on the student's performance as either Pass or Fail. A student may pass the exam with no more than one negative vote. Upon successful completion of the oral examination, the student is officially entered into candidacy and permitted to refine their proposed dissertation research and submit it for final committee approval before initiating the project (see below). An unsuccessful oral examination shall require reexamination within a time period determined by the committee. Only one oral re-examination is permitted.
- 4. Dissertation research/proposal: Students must propose and conduct a substantial original clinical and/or translational investigation under the supervision of the research advisers and advisory committee. The student can refine the research proposal which served as the foundation of their oral examination in consultation with the research advisers and advisory committee or propose a new novel research proposal. The proposal, which shall be constructed in the format of an NIH grant submission, should include information on the general purpose of the research, background information on the research topic (including a review of the relevant literature), a rationale for the project, a statement of the hypotheses to be investigated or research questions to be answered, and proposed methods and statistical analyses. Once the student has received the committee's approval, they can initiate their dissertation research.
- 5. Dissertation research project: The research project should represent a significant contribution to the body of knowledge in its field and should be deemed publishable in refereed journals. The emphasis of the research conducted by students in this program shall be on clinical and translational interdisciplinary research, incorporating two or more disciplines as well as a systems approach. This emphasis will be fostered by the requirement of having at least one faculty member on the research advisory committee from a school or college different from that of the research advisers, thereby exposing students to different perspectives on the same problem and assisting students in developing multidisciplinary approaches to their research.
- Dissertation defense: Students shall prepare a written dissertation describing the completed research using a format approved by the VCU Graduate School. An oral defense of the dissertation, under the direction of the research advisory committee and open to all faculty members, shall be scheduled to examine the student's research, dissertation documentation and underlying fundamental knowledge across the disciplines encompassed by the student's research. An announcement of the oral defense, including the candidate's name, dissertation title and the day, place and time of the defense, shall be made at least 10 working days in advance of the defense. Following the defense, all committee members shall vote on the acceptability of the dissertation. A student may pass the oral defense, signifying that the research advisory committee has accepted the dissertation, with no more than one negative vote. Upon successful completion of the defense and dissertation, the student may apply for graduation from Virginia Commonwealth University with the degree of Doctor of Philosophy in Clinical and Translational Sciences with a concentration in psychiatric, behavioral and statistical genetics.

Research advisers and committee

Each student in the program will have both a research and a clinical mentor (these could be the same or different faculty members). This team-based mentoring approach will facilitate the translational aspects of the Ph.D. students' projects and may actually serve to stimulate new translational projects and collaborations at VCU. The research mentors in the program will be chosen based on demonstrated research expertise in the area of cancer or molecular medicine, excellent mentoring skills, and research funding to support the Ph.D. student. Clinical mentors will be chosen based on clinical expertise and mentoring excellence. Through the clinical mentor, the trainee will have opportunities to be exposed to clinical practice, including clinics and surgeries, clinical laboratories, the complexities of clinical trials, and other clinical activities. The clinical activities are expected to consist of approximately one hour/week on average for Ph.D. students, but would be more intensive for M.D./Ph.D. students, in keeping with the existing requirements for that program. Both the research and clinical mentor would be on the thesis committee, which would comprise a total of five faculty members, at least three of whom are CMM faculty members. For M.D./Ph.D. students, their clinical mentors will be the same faculty member serving as their Foundations of Clinical Medicine preceptors. The students' mentors and thesis

committee will advise the students as they prepare career development plans in the second year in the program. The career development plan will be required because translational science is by definition an interdisciplinary and novel career path for students.

Qualifying exam

Students in good academic standing who have completed all of their required academic core course work will spend the summer after the second year preparing for the qualifying exam. The qualifying exam will consist of writing a review paper of no more than 30 double-spaced pages, excluding references. In keeping with the interdisciplinary nature of the program, the review paper must demonstrate mastery across the core areas represented in PBSG (genetics, phenotyping, methods). The topic of the review paper should be developed by the students in consultation with their advisers. The title of the review paper, along with a short abstract (no longer than one single-spaced page) describing the proposed content should be submitted to the PBSG program director by June 15 for review by the qualifying exam committee. The QEC will review the proposal to ensure that the topic of the review paper is appropriate in that it allows the student to demonstrate command of the literature and interdisciplinary breadth. The committee will make decisions about adequacy of the review paper and, if necessary, work with the student to make revisions within approximately 14 days. Once the topic has been approved by the QEC, the student may begin writing. The review paper must be the student's own work. Drafts may not be reviewed by the student's adviser or other faculty, fellows or students. The final review paper must be submitted to the advisory committee by Aug. 1.

An oral examination of the paper administered by the student's advisory committee and the QEC must be scheduled to take place approximately two weeks after submission to evaluate the student's command of the material and to give the committee opportunity to ask questions and provide feedback. A pass/fail decision will be made at that time. Unsuccessful completion of the qualifying exam will require re-examination within a period of time determined by the committee and PBSG program director. The content of the re-examination will also be determined by the committee and PBSG program director on an individual basis. In some cases this could involve a revision of the review paper or particular sections; in other cases, it may involve a repeat of the entire process including selection of a new topic and submission of a new review paper and/or repeat of the oral defense. Only one reattempt to pass qualifying exams is permitted. Students who do not pass their qualifying exams upon their second attempt will be dismissed from the program. Upon successful completion of the oral examination, the student is then officially entered into candidacy for the Ph.D. and permitted to refine their proposed dissertation research and submit it for final committee approval before initiating the project (see below).

Admission to Ph.D. candidacy

Students will have written and oral qualifying examinations, based on writing a grant proposal describing their proposed thesis research and orally defending the proposal with their thesis committee. Before admission to candidacy for the Ph.D., students must have (1) completed all required course work as described above and (2) successfully completed a qualifying exam.

Dissertation proposal defense

Students who have completed the qualifying exam and the second year project are eligible to propose and defend their dissertation. The proposal should be constructed in the format of an NIH grant submission. The proposal must consist of an original research idea generated by the student in consultation with their adviser. The dissertation proposal defense should generally be completed during the fall semester of the third year. Students shall prepare a written dissertation describing the completed research using a format approved by the VCU Graduate School. An oral defense of the dissertation, under the direction of the research advisory committee and open to all faculty members, shall be scheduled to examine the student's research, dissertation documentation and underlying fundamental knowledge across the disciplines encompassed by the student's research. An announcement of the oral defense, including the candidate's name, dissertation title, and the day, place and time of the defense, shall be made at least 10 working days in advance of the defense.

Following the defense, all committee members shall vote on the acceptability of the dissertation. A student may pass the oral defense, signifying that the research advisory committee has accepted the dissertation, with no more than one negative vote. Upon successful completion of the defense and dissertation, the student may

apply for graduation from Virginia Commonwealth University with the degree of Doctor of Philosophy in Clinical and Translational Sciences with a concentration in psychiatric, behavioral and statistical genetics.

Time limit

All requirements for the Ph.D. must be completed within eight years from the date of admission to the degree program.

Concentration in psychiatric, behavioral and statistical genetics

The concentration in psychiatric, behavioral and statistical genetics was designed by faculty at the Virginia Institute for Psychiatric and Behavioral Genetics. This interdisciplinary institute brings together faculty with a wide range of scientific backgrounds ranging from statistical and molecular genetics to epidemiology, psychology and psychiatry, all with the joint focus of understanding how genetic and environmental factors impact the development of psychiatric and substance use disorders and related behavioral outcomes.

Faculty members work across twin and family studies, gene identification projects and genetically informative longitudinal, community-based samples. Faculties also are involved in statistical methods development for these projects. Students in the PBSG concentration obtain interdisciplinary training with course work in human genetics, psychology/psychiatry, biostatistics and epidemiology. Students can tailor their training and research experience to their particular career goals by selecting electives in their focused area of interest.

First-year project

All students are required to conduct a first-year research project. The nature of the first-year project will vary according to the area of the student's research. This project must be written up by the student and submitted to the PBSG program director and it must follow a scientific paper format and include an abstract, introduction, methods, results and discussion sections. The depth of the individual sections of the project will vary according to the nature of the project. Although the write-up of the first-year project is not required to be of publication quality, it should demonstrate a basic command of the research process and an ability to integrate relevant literature and nascent data into testable hypotheses. The adviser and PBSG program director will review, consult and make a decision about the adequacy of the submitted first-year project write-up. Feedback will generally be given within 14 days of receipt of the write-up. Students cannot move on to the second-year project until the first-year project has been signed off on by the adviser and PBSG program director. Students must give a presentation as part of the VIPBG seminar series on their first-year projects at some point during the spring semester of the first year. Students should aim to submit their written firstyear projects prior to the start of the fall semester of the second year of graduate

Second-year project

The second-year research project can be a continuation/extension of the first-year project or consist of a new research question. The second-year project should be developed in collaboration with the student's advisory committee. This should happen soon after the first-year project has been signed off on (if not before). Students must give a presentation on their second-year projects at some point during the spring semester of the second year. Second-year projects are expected to be of publication quality and should follow a scientific paper format, which includes an abstract, introduction, methods, results and discussion sections. The advisory committee and PBSG program director will review, consult and make a decision about the adequacy of the second-year project, generally within 14 days of its receipt. Students cannot progress to the oral defense of the dissertation proposal until the second year-project has been signed off on by the advisory committee and PBSG program director. Students should aim to have their second-year projects completed early in the fall semester of their third year of graduate study.

Curriculum requirements

Courses

Required courses	29-32
BIOS/STAT 543 Statistical Methods I	3
BIOS/STAT 544 Statistical Methods II	3

Credit hours

CCTR 690 Research Seminar in Clinical and Translational Sciences (concentration-specific section)	1
CCTR 815 The NIH Proposal Challenge or PSYC 700 Grant	2 or 3
Writing	
EPID 571 Principles of Epidemiology	3
HGEN 501/BIOL 530 Human Genetics	3
HGEN 502 Advanced Human Genetics	3
HGEN 603 Mathematical and Statistical Genetics	3
HGEN 620 Principles of Human Behavioral Genetics	3
OVPR 601 Scientific Integrity, OVPR 602 Responsible	1
Scientific Conduct or OVPR 603 Responsible Conduct of	
Research	
PSYC 616 Psychopathology	3
PSYC 691 Special Topics (research methods)	1-3

Electives variable

A minimum of three elective courses must be taken and can be selected from the range of classes available across VCU departments, including the departments of Psychology, Human and Molecular Genetics, Biostatistics and/or any other relevant course that fits with the student's primary focus and interests, in consultation with the student's research advisory committee.

Research	variable
CCTR 697 Directed Research in Clinical and Translational	variable
Sciences	
CCTR 898 Dissertation Research in Clinical and Translational	variable
Sciences	

Total graduate credit hours required (minimum) 54

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Clinical and Translational Sciences, Doctor of Philosophy (Ph.D.), general curriculum

Graduate program director

Teraya M. Donaldson, Ph.D. Education program coordinator

Center for Clinical and Translational Research cctred@vcu.edu (804) 828-6671

Additional contact

Risham A. Qureshi
Administrative assistant
Center for Clinical and Translational Research
qureshira@vcu.edu
(804) 628-5414

Program website: cctr.vcu.edu/education

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Clinical and Translational Sciences, Doctor of Philosophy (Ph.D.) with a concentration in cancer and molecular medicine Clinical and Translational Sciences, Doctor of Philosophy (Ph.D.) with a concentration in psychiatric, behavioral and statistical genetics Clinical and Translational Sciences, Master of Science (M.S.)

Apply online at graduate.admissions.vcu.edu.

Admission requirements

Clinical and Translational Sciences, Doctor of Philosophy (Ph.D.), general curriculum				
Degree:	Semester(s)	Deadline	Test	
	of entry:	dates:	requirements:	
Ph.D.	Fall (preferred);	Applications received	GRE, TOEFL if	
	rolling admissions	by Jan 10 receive	relevant	
		priority		

In addition to the general admission requirements of the VCU Graduate School, all applicants must provide the following:

- A statement of purpose for application to the program. The document should be 1.5 or double-spaced with one-inch margins, in a font size no smaller than 11 points. The statement of purpose should cover the below issues in two to five pages:
 - a. Why the applicant wishes to pursue a Ph.D. in clinical and translational sciences
 - Background experience relevant to pursuing a Ph.D. in clinical and translational sciences
 - Research interests and potential faculty mentors with whom the individual would want to work
 - d. Description of the applicant's career goals
- Scores from the Graduate Record Examination (GRE). Applicants must score at the 75th percentile or above in all sections of the GRE.
- International applicants must also provide, to the VCU Global Education
 Office scores from the Test of English as a Foreign Language or International
 English Language Testing System
- 7. Please submit curriculum vitae or resume to:

Susan E. Simmons Center for Clinical and Translational Research P.O. Box 980261 Richmond, VA 23298-0261

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the

University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The doctoral program in clinical and translational sciences offers a general curriculum, an interdisciplinary concentration in psychiatric, behavioral and statistical genetics and a concentration in cancer and molecular medicine.

Students who pursue the doctoral program in clinical and translational sciences will be grounded in a relative substantive area and be prepared to integrate data from multiple disciplines, have strong communication and computational skills and be sufficiently flexible to easily move among different projects and research venues

Student learning outcomes

Students who complete the program should achieve the following core competencies:

- Understand, integrate and apply relevant biomedical biobehavioral concepts and theoretical frameworks to research
- Comprehend, select and apply the appropriate study design to address specific health issues
- Critically review the scientific literature by applying sound research knowledge and principles to the review
- 4. Apply data collection processes and information technology to create, maintain and secure databases and other information
- 5. Apply ethical principles to study design, data collection and dissemination
- Devise an analysis plan (statistical methodology) and analyze data using methods appropriate for the study design and type of data to be obtained
- 7. Identify, interpret and implement relevant laws, regulations and policies related to specific studies and/or programs
- 8. Plan, incorporate and use appropriate methods for the dissemination and adoption of clinical research findings
- Manage as a clinical translational research team leader the fiscal, personnel, facilities, regulatory assets and scientific integrity of a funded clinical research program
- 10. Use knowledge and skills related to leadership, team-building, negotiation, conflict resolution, group process and principles of ethical decision-making to manage a research team and build transdisciplinary collaboration
- Identify and coordinate institutional resources needed to carry out theoretically based and scientifically sound high-quality funded research
- 12. Effectively communicate specialist-to-specialist
- Effectively communicate specialist knowledge to nonspecialists and laypersons

Degree requirements

All students are expected to be actively engaged in research throughout the duration of the Ph.D. program. Students are generally admitted under a mentorship model, meaning that they will begin research under the supervision of faculty advisers to whom their research interests most closely align. Other didactic experiences include the weekly seminar series (both at the VIPBG and in external departments) as well as participation in workshops and scientific meetings of relevance to the student's research area.

The curriculum provides a strong grounding in fundamental concepts while emphasizing aspects of research design and technology that are broadly applicable across disciplines in industrial, government and academic settings. A series of elective courses will then provide an advanced base of knowledge focused on a student's areas of interest.

In addition to general VCU Graduate School graduation requirements, students are required to meet the following:

- Credit hour requirements: Students are required to complete course work in
 core and elective courses and to conduct significant research. In order to earn
 the Ph.D., students must complete a minimum of 54 credit hours: 32 core and
 elective courses as well as 22 in directed and dissertation research that
 provide a sound foundation in clinical and translational research principles.
 Students will also participate in seminar and workshop experiences that place
 them in the midst of the research process from theoretically based hypothesis
 generation through grant writing, study conduction, and, ultimately, data
 analysis and manuscript preparation. This program also includes a rigorous
 interdisciplinary research component comprising directed research and
 dissertation hours.
- 2. Transfer and M.S. credit hours: Graduate-level course work completed prior to matriculation into the program, including course work taken in another program at VCU or at another institution, shall be evaluated to determine whether it can be used to fulfill degree requirements of this program. Transfer of credit hours will be limited to those allowed by the university. A minimum grade of B is required for credit hours to transfer.
- 3. Grade requirements: Degree applicants must achieve an overall GPA of 3.0 (B) with a grade of C in no more than two courses per the VCU Graduate Bulletin. The GPA for graduation shall be based on all graduate courses attempted after acceptance into the program. Students who receive a grade lower than a B in any of the required core courses will be subject to remedial action as determined by their advisory committee in conjunction with the program director to ensure that there is adequate mastery of the material. All remedial action must be undertaken and completed to the committee's satisfaction before the student is eligible to begin their qualifying exams.
- 4. Research advisers and committee: The director of the CCTR education program or the director's assigned designee will assist the student with initial course selection and provide advice concerning the program. All students should select their master's or doctoral co-advisers and finalize the composition of their research advisory committee prior to the end of the second semester of study.
- 5. The student's co-advisers shall provide each student enrolled in the master's or doctoral program with individualized recommendations regarding course work selection, workshop experiences and the direction of their research. It is essential that each student be comprehensively assessed in the area of their methodological and research background. Particularly in the case of those pursuing the Ph.D., recommendations will be made to ensure that each student has acquired the needed substantive research background necessary for doctoral-level work. Thus, the total credit hours required for graduation will be determined on a case-by-case basis by the individual student's research advisory committee.
- 6. The committee will consist of a minimum of five members, all of whom must be members of the VCU graduate faculty. Note: Individuals who are not already graduate faculty members must apply to the dean of the Graduate School for temporary affiliate membership. The composition of the research advisory committee shall be such that the significant areas of the student's research focus are represented. To foster the interdisciplinary intent of this degree program, at least one member of the committee shall be from a school other than those of the student's co-advisers. Final approval of each student's advisory committee membership shall rest with the CCTR Education Program committee.
- Admission to candidacy for the Ph.D. Before admission to candidacy for the Ph.D., students must have:
 - a. Completed all required course work (as noted above, through a comprehensive screening process students will have been evaluated to assure that they have grounding in a relevant substantive content area and have taken the needed course work in statistics, methodology and research so that they are able to pursue doctoral-level research)
 - b. Successfully completed an oral examination
- 3. Oral examination: Upon successful completion of all required didactic course work, not including seminars and workshops and submission and acceptance of a research proposal, students shall take an oral examination administered by the student's research advisory committee. The exam shall be based on a defense of the student's proposed dissertation research project, which shall be constructed in the format of an NIH grant submission and all other subject

areas deemed appropriate by the committee. All advisory committee members must vote on the student's performance as either Pass or Fail. A student may pass the exam with no more than one negative vote. Upon successful completion of the oral examination, the student is officially entered into candidacy and permitted to refine their proposed dissertation research and submit it for final committee approval before initiating the project (see below). An unsuccessful oral examination shall require reexamination within a time period determined by the committee. Only one oral re-examination is permitted.

- 4. Dissertation research/proposal: Students must propose and conduct a substantial original clinical and/or translational investigation under the supervision of the research advisers and advisory committee. The student can refine the research proposal which served as the foundation of their oral examination in consultation with the research advisers and advisory committee or propose a new novel research proposal. The proposal, which shall be constructed in the format of an NIH grant submission, should include information on the general purpose of the research, background information on the research topic (including a review of the relevant literature), a rationale for the project, a statement of the hypotheses to be investigated or research questions to be answered, and proposed methods and statistical analyses. Once the student has received the committee's approval, they can initiate their dissertation research.
- 5. Dissertation research project: The research project should represent a significant contribution to the body of knowledge in its field and should be deemed publishable in refereed journals. The emphasis of the research conducted by students in this program shall be on clinical and translational interdisciplinary research, incorporating two or more disciplines as well as a systems approach. This emphasis will be fostered by the requirement of having at least one faculty member on the research advisory committee from a school or college different from that of the research advisers, thereby exposing students to different perspectives on the same problem and assisting students in developing multidisciplinary approaches to their research.
- Dissertation defense: Students shall prepare a written dissertation describing the completed research using a format approved by the VCU Graduate School. An oral defense of the dissertation, under the direction of the research advisory committee and open to all faculty members, shall be scheduled to examine the student's research, dissertation documentation and underlying fundamental knowledge across the disciplines encompassed by the student's research. An announcement of the oral defense, including the candidate's name, dissertation title and the day, place and time of the defense, shall be made at least 10 working days in advance of the defense. Following the defense, all committee members shall vote on the acceptability of the dissertation. A student may pass the oral defense, signifying that the research advisory committee has accepted the dissertation, with no more than one negative vote. Upon successful completion of the defense and dissertation, the student may apply for graduation from Virginia Commonwealth University with the degree of Doctor of Philosophy in Clinical and Translational Sciences.

Research advisers and committee

Each student in the program will have both a research and a clinical mentor (these could be the same or different faculty members). This team-based mentoring approach will facilitate the translational aspects of the Ph.D. students' projects and may actually serve to stimulate new translational projects and collaborations at VCU. The research mentors in the program will be chosen based on demonstrated research expertise in the area of cancer or molecular medicine, excellent mentoring skills, and research funding to support the Ph.D. student. Clinical mentors will be chosen based on clinical expertise and mentoring excellence. Through the clinical mentor, the trainee will have opportunities to be exposed to clinical practice, including clinics and surgeries, clinical laboratories, the complexities of clinical trials, and other clinical activities. The clinical activities are expected to consist of approximately one hour/week on average for Ph.D. students, but would be more intensive for M.D./Ph.D. students, in keeping with the existing requirements for that program. Both the research and clinical mentor would be on the thesis committee, which would comprise a total of five faculty members, at least three of whom are CMM faculty members. For M.D./Ph.D. students, their clinical mentors will be the same faculty member serving as their Foundations of Clinical Medicine preceptors. The students' mentors and thesis committee will advise the students as they prepare career development plans in the second year in the program. The career development plan will be required because

translational science is by definition an interdisciplinary and novel career path for

Qualifying exam

Students in good academic standing who have completed all of their required academic core course work will spend the summer after the second year preparing for the qualifying exam. The qualifying exam will consist of writing a review paper of no more than 30 double-spaced pages, excluding references. In keeping with the interdisciplinary nature of the program, the review paper must demonstrate mastery across the core areas represented. The topic of the review paper should be developed by students in consultation with their advisers. The title of the review paper, along with a short abstract (no longer than one single-spaced page) describing the proposed content should be submitted to the concentration program director by June 15 for review by the qualifying exam committee. The QEC will review the proposal to ensure that the topic of the review paper is appropriate in that it allows the student to demonstrate command of the literature and interdisciplinary breadth. The committee will make decisions about adequacy of the review paper and, if necessary, work with the student to make revisions within approximately 14 days. Once the topic has been approved by the QEC, the student may begin writing. The review paper must be the student's own work. Drafts may not be reviewed by the student's adviser or other faculty, fellows or students. The final review paper must be submitted to the advisory committee by

An oral examination of the paper administered by the student's advisory committee and the QEC must be scheduled to take place approximately two weeks after submission to evaluate the student's command of the material and to give the committee opportunity to ask questions and provide feedback. A pass/fail decision will be made at that time. Unsuccessful completion of the qualifying exam will require re-examination within a period of time determined by the committee and the program director. The content of the re-examination will also be determined by the committee and program director on an individual basis. In some cases this could involve a revision of the review paper or particular sections; in other cases, it may involve a repeat of the entire process including selection of a new topic and submission of a new review paper and/or repeat of the oral defense. Only one reattempt to pass qualifying exams is permitted. Students who do not pass their qualifying exams upon their second attempt will be dismissed from the program. Upon successful completion of the oral examination, the student is then officially entered into candidacy for the Ph.D. and permitted to refine their proposed dissertation research and submit it for final committee approval before initiating the project (see below).

Admission to Ph.D. Candidacy

Students will have written and oral qualifying examinations, based on writing a grant proposal describing their proposed thesis research and orally defending the proposal with their thesis committee.

Dissertation proposal defense

Students who have completed the qualifying exam and the second year project are eligible to propose and defend their dissertation. The proposal should be constructed in the format of an NIH grant submission. The proposal must consist of an original research idea generated by the student in consultation with their adviser. The dissertation proposal defense should generally be completed during the fall semester of the third year. Students shall prepare a written dissertation describing the completed research using a format approved by the VCU Graduate School. An oral defense of the dissertation, under the direction of the research advisory committee and open to all faculty members, shall be scheduled to examine the student's research, dissertation documentation and underlying fundamental knowledge across the disciplines encompassed by the student's research. An announcement of the oral defense, including the candidate's name, dissertation title, and the day, place and time of the defense, shall be made at least 10 working days in advance of the defense.

Following the defense, all committee members shall vote on the acceptability of the dissertation. A student may pass the oral defense, signifying that the research advisory committee has accepted the dissertation, with no more than one negative vote. Upon successful completion of the defense and dissertation, the student may apply for graduation from Virginia Commonwealth University with the degree of Doctor of Philosophy in Clinical and Translational Sciences.

Time limit

All requirements for the Ph.D. must be completed within eight years from the date of admission to the degree program.

Curriculum requirements

Courses	Credit hours
Core courses	17
BIOS 571 Clinical Trials	3
CCTR 520 Fundamentals of Research Regulation	2
CCTR 690 Research Seminar in Clinical and Translational Sciences	3
CCTR 801, 802, 803 Research Practicum I, II, III (one credit hour each)	3
CCTR 815 The NIH Proposal Challenge	2
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	1
Statistics, clinical trial or translational experimental design courses (chosen with approval of research advisory committee)	3
(chosen with approval of research advisory committee)	

Electives (chosen with approval of research advisory committee)

Research

CCTR 697 Directed Research in Clinical and Translational	variable
Sciences	
CCTR 898 Dissertation Research in Clinical and Translational	variable
Sciences	

Total graduate credit hours required (minimum)

54

Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements



Clinical and Translational Sciences, Master of Science (M.S.)

Graduate program director

Teraya M. Donaldson, Ph.D. CCTR graduate education program coordinator cctred@vcu.edu

(804) 828-6671

Additional contact

Risham A. Qureshi Administrative assistant Center for Clinical and Translational Research qureshira@vcu.edu (804) 628-5414

Program website: cctr.vcu.edu/education

Refer to the program search function of the online VCU Bulletins for a complete listing of all programs, concentrations and related curricular options.

Clinical and Translational Sciences, Doctor of Philosophy, general curriculum Clinical and Translational Sciences, Doctor of Philosophy, with a concentration in cancer and molecular medicine

Clinical and Translational Sciences, Doctor of Philosophy, with a concentration in psychiatric, behavioral and statistical genetics

Apply online at graduate.admissions.vcu.edu.

Admission requirements summary

Admission to this program will reopen for fall 2015.

Clinical and Translational Sciences, Master of Science (M.S.)			
Degree:	Semester(s)	Deadline	Test
	of entry:	dates:	requirements:
M.S.	Fall	Jun 15	None

In addition to the general admission requirements of the VCU Graduate School, please note the following:

- $1. \quad Enrollment \ is \ open \ to \ VCU \ junior \ faculty \ only.$
- Applicants should be early stage investigators with terminal degrees (e.g. M.D., Ph.D., D.D.S., Sc.D., D.V.M., Ed.D, Pharm.D.).
- Applicants should have a targeted research interest that is explained in a personal statement accompanying the graduate application.
- 4. A letter of support from the applicant's department chair is mandatory.
- 5. A letter of commitment from an academic adviser is mandatory.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

General academic regulations for all graduate students in all graduate programs at VCU



Program goal

The Master of Science in Clinical and Translational Sciences program provides training and mentoring for a new generation of investigators who, regardless of

primary areas of interest, will be able to understand the methods and techniques used along the pathway from the bench to the bedside, to the community and beyond. The program emphasizes the importance of interdisciplinary approaches to research.

Student learning outcomes

- Understand, integrate and apply relevant biomedical biobehavioral concepts and theoretical frameworks to research
- 2. Comprehend, select and apply the appropriate study design to address specific health issues
- 3. Critically review the scientific literature by applying sound research knowledge and principles to the review
- Apply data collection processes and information technology to create, maintain and secure databases and other information
- 5. Apply ethical principles to study design, data collection and dissemination
- Devise an analysis plan (statistical methodology) and analyze data using methods appropriate for the study design and type of data to be obtained
- 7. Identify, interpret and implement relevant laws, regulations and policies related to specific studies and/or programs
- 8. Plan, incorporate and use appropriate methods for the dissemination and adoption of clinical research findings
- Manage as a clinical translational research team leader, including the fiscal, personnel, facilities, regulatory assets and scientific integrity of a funded clinical research program
- Effectively communicate specialist-to-specialist
- Effectively communicate specialist knowledge to nonspecialists and laypersons

Degree requirements

In addition to the VCU Graduate School graduation requirements, the master's degree can be earned upon completion of 30 credit hours that combine didactic course work and directed research, including a master's capstone project in the form of a peer-reviewed journal article or a grant proposal.

The program provides a sound foundation in clinical and translational research principles and thereby prepares the student to engage in many components of investigative processes. Students are expected to attend the research seminar course each semester they are in the program (and register for the course a minimum of three times) in order to stay abreast of current health and human services research and to develop their communication skills. Additionally, students must complete a course on responsible conduct of research and scientific integrity, which will ensure that students understand the broad ethical implications of biobehavioral and biomedical research, understand what constitutes scientific fraud and misconduct and are aware of their responsibilities as scientists.

When students have reached 27 credit hours of didactic and research course work, they must register for CCTR 700 Master's Capstone Project, which may be in one of two forms: an NIH-style grant proposal or a peer-reviewed journal article ready for submission.

This project will be overseen and reviewed by the student's research advisory committee. Students are expected to present their final projects to the committee for acceptance.

Curriculum requirements

Courses	Credit hours
Required courses	18
CCTR 520 Fundamentals of Research Regulation	2
CCTR 690 Research Seminar in Translational Sciences (one credit, taken for three semesters)	3
CCTR 697 Directed Research in Clinical and Translational Sciences	9
CCTR 700 Master's Capstone Project	3
OVPR 601 Scientific Integrity, OVPR 602 Responsible Scientific Conduct or OVPR 603 Responsible Conduct of Research	1

Electives	12
Examples of potential electives include but are not limited to:	
ANAT 615 Techniques in Neuroscience and Cell Biology	3
ANAT 620 Scientific Writing and Grantsmanship	2
BIOC 530 Biochemistry, Cell and Molecular Biology Module 1: Protein Structure and Function	2
BIOC 532 Biochemistry, Cell and Molecular Biology Module 3: Central Dogma of Molecular Biology	2
BIOS 668 Statistical Methods for High-throughput Genomic Data II	3
BNFO 621 Business and Entrepreneurship Essentials for Life Scientists	3
CCTR 801, 802, 803 Research Practicum I, II, III	3
EPID 620 Cancer Epidemiology	3
MEDC 530 Bioinformatics and Genomics in Drug Research	3
NURS 773 Perspectives on Research Design	3
At least three credit hours of elective course work must be in biostatistics (e.g. BIOS 543, BIOS 571, CCTR 702, CCTR 703, DENS 580).	

Degree candidacy requirements

Total graduate credit hours required (minimum)

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

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Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Degree candidacy requirements



Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Graduation requirements

