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**Virginia Commonwealth University**

ACADEMIC DIVISION

**1970-1971 BULLETIN**





**BULLETIN**

of

**VIRGINIA COMMONWEALTH UNIVERSITY**

Academic Division

**CATALOGUE ISSUE**

1970-1971

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## **PREFACE**

Virginia Commonwealth University was created by an act of the General Assembly of Virginia during its 1968 session. The University was formed, effective July 1, 1968, by combining Richmond Professional Institute and the Medical College of Virginia. RPI became the nucleus of the Academic Division, and MCV was designated as the Health Sciences Division of the University.

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# ACADEMIC CALENDAR 1970-1971

**SEPTEMBER**

S	M	T	W	T	F	S
			1	2	3	4 5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

**8**  
General Faculty Meeting, 10:30 a.m.  
Faculty Advisers' Meeting, 2:00 p.m.

**8, 9**  
Registration for students taking only evening classes

**8-12**  
Orientation for all new students

**9**  
Advising sessions for new students

**10**  
Registration for degree seeking students

**11**  
Registration for special students

**14**  
Classes begin at 3:00 a.m.

**14-16**  
Add/drop and late registration for day students

**14-19**  
Add/drop and late registration for evening students

**21**  
Opening Convocation at 10:00 a.m.

**OCTOBER**

S	M	T	W	T	F	S
					1	2 3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

**27**  
Convocation at 10:00 a.m.

**NOVEMBER**

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

**1**  
Last day for fall degree candidates to file application

**7**  
Last day to drop a course with a grade of "W"

**11**  
Mid-semester grades due in Registrar's Office by 9:00 a.m.

**21**  
Thanksgiving holiday begins at 12 noon for evening classes

**25**  
Thanksgiving holiday begins at 1:00 p.m. for day classes

**30**  
Thanksgiving holiday ends at 8:00 a.m.

**30-Dec. 10**  
Academic advising for advance registration

**DECEMBER**

S	M	T	W	T	F	S
			1	2	3	4 5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

**1**  
Last day to submit an application for admission or readmission for the spring semester

**1**  
Last day for spring degree candidates to file application

**5**  
Last day to drop a course with grade of "WF" or "WP"

**8, 9, 10**  
Advance registration for Spring Semester

**18**  
Final date for oral defense of graduate thesis for January completion of degree

**19**  
Christmas vacation begins at noon

**JANUARY**

S	M	T	W	T	F	S
						1 2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

**4**  
Christmas vacation ends at 8:00 a.m.

**9**  
Classes end for fall semester at 12 noon

**11-20**  
Final examinations for fall semester

**13-21**  
Submitting of final grade reports to the registrar

**26, 27**  
Registration for students taking only evening classes

**27**  
Orientation for new students for spring semester

**28**  
Registration for degree seeking students

**29**  
Registration for special students

**FEBRUARY**

S	M	T	W	T	F	S
						1 2 3 4 5
7	8	9	10	11	12	
14	15	16	17	18	19	
21	22	23	24	25	26	
28						

**1**  
Classes begin at 8:00 a.m.

**1-3**  
Add/drop and late registration for day students

**1-6**  
Add/drop and late registration for evening students

**18**  
Convocation at 10:00 a.m.

**MARCH**

M	T	W	T	F	S
1	2	3	4	5	6
8	9	10	11	12	13
15	16	17	18	19	20
22	23	24	25	26	27
29	30	31			

**APRIL**

S	M	T	W	T	F	S
					1	2
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

**MAY**

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

**JUNE**

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

**JULY**

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

**AUGUST**

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

**0**  
Last day to drop a course with a grade of "W"

**4**  
Mid-semester grades in registrar's office by 9:00 a.m.

**7**  
Spring vacation begins at 12 noon

**5**  
Spring vacation ends at 8:00 a.m.

**19**  
Convocation at 10:00 a.m.

**19-29**  
Academic advising for advance registration

**27-29**  
Advance registration for fall semester

**1**  
Last day to submit an application for admission or readmission for the summer session

**1**  
Last day to drop a course with grade of "WF" or "WP"

**22**  
Classes end for spring semester

**24-June 2**  
Final examinations for spring semester

**26-June 3**  
Submitting of final grade reports to the registrar

**28**  
Final date for oral defense of graduate thesis for June graduation

**6**  
Commencement day

**9, 10**  
Registration for summer session

**12**  
Twelve-week Saturday classes begin

**14**  
Classes begin for 6-week and 9-week sessions

**15**  
Last day to submit an application for admission or readmission for the fall semester

**15**  
Last day for summer degree candidates to file application in registrar's office

**23**  
End of 6-week session

**23**  
Registration for 3-week and 5-week sessions

**26**  
Classes begin for 3-week and 5-week sessions

**30**  
Final date for oral defense of graduate thesis for August completion of degree

**13**  
End of 3-week and 9-week sessions

**27**  
End of 5-week session

**28**  
End of 12-week Saturday classes



## PROPOSED 1971-1972 UNIVERSITY CALENDAR

SEPTEMBER						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

**7**  
General Faculty meeting  
10:30 a.m.  
Faculty Advisers Meeting, 2:00 p.m.

**7-8**  
Registration for students taking only evening classes

**7-11**  
Orientation for all new degree-seeking students

**8**  
Advising sessions for all new students

**9-10**  
Registration for returning and new degree-seeking students

**10**  
Registration for special day students

**13**  
Classes begin at 8:00 a.m.

**13-17**  
Add/Drop and late registration for day students

**13-18**  
Add/Drop and late registration for evening students

OCTOBER						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

NOVEMBER						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

**1**  
Last day for Fall degree candidates to file application

**9**  
Last day to drop a course with a grade of "W"

**10**  
Mid-semester grades due

**24**  
Thanksgiving holiday begins at 1:00 p.m.

**29**  
Thanksgiving holiday ends at 8:00 a.m.

**29-Dec. 6**  
Academic advising for advance day registration

DECEMBER						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

**1**  
Last day to submit an application for admission or readmission to the Spring semester

**1**  
Last day for Spring degree candidates to file applications

**4**  
Last day to drop a course with grade of "WF" or "WP"

**7-10**  
Advance registration for Spring semester

**17**  
Final date for oral defense of graduate thesis for January completion of degree

**18**  
Christmas vacation begins at 12 noon

JANUARY						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

**3**  
Christmas vacation ends at 8:00 a.m.

**11**  
Classes end for fall semester

**12-21**  
Final examinations for fall semester

**22**  
Filing of final grade reports for day classes

**24-26**  
Registration for students taking only evening classes

**26**  
Orientation for new degree-seeking students

**27**  
Registration for degree-seeking students and for special day students

**31**  
Classes begin at 8:00 a.m.

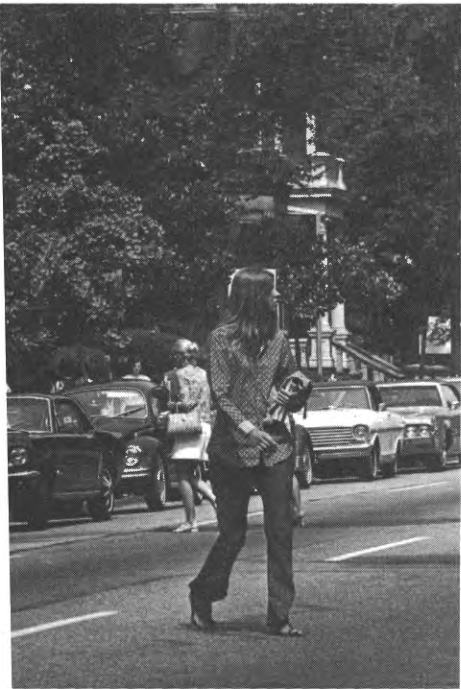
**31-Feb. 4**  
Add/Drop and late registration for day students

**31-Feb. 5**  
Add/Drop and late registration for evening students

FEBRUARY						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

MARCH							APRIL							MAY							JUNE							JULY							AUGUST						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
5	6	7	8	9	10	11	2	3	4	5	6	7	8	7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8	6	7	8	9	10	11	12
12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19
19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26
26	27	28	29	30	31	23	24	25	26	27	28	29	30	28	29	30	31	25	26	27	28	29	30	23	24	25	26	27	28	29	27	28	29	30	31	27	28	29	30	31	
<b>21</b> Last day to drop a course with a grade of "W"							<b>3</b> Spring vacation ends at 8:00 a.m.							<b>20</b> Classes end for Spring semester							<b>1</b> Final date for filing grade reports							<b>15</b> Last day to submit applications for admission or readmission as degree-seeking or special students for day classes in the Fall semester							<b>11</b> End of 3-week and 9-week sessions						
<b>22</b> Mid-semester grades due							<b>17-24</b> Academic advising for advance registration							<b>22-31</b> Final examinations for Spring semester							<b>4</b> Comemncement Day							<b>25</b> End of 5-week session													
<b>25</b> Spring vacation begins at 12 noon							<b>25-27</b> Advance registration for Fall semester							<b>26</b> Final date for oral defense of graduate thesis for June graduation							<b>7-8</b> Registration for summer session							<b>15</b> Last day for summer degree candidates to file application							<b>26</b> End of 12-week Saturday classes						
<b>29</b> Last day to drop a course with grade of "WF" or "WP"																					<b>10</b> Twelve-week Saturday classes begin							<b>12</b> Classes begin for 6-week and 9-week sessions							<b>21</b> End of 6-week session						
																					<b>12</b> Classes begin for 6-week and 9-week sessions							<b>21</b> Registration for 3-week and 5-week sessions							<b>24</b> Classes begin for 3-week and 5-week sessions						
																												<b>21</b> Registration for 3-week and 5-week sessions							<b>28</b> Final date for oral defense of graduate thesis for August completion of degree						





## **PART I—GENERAL INFORMATION**

**PURPOSES AND OBJECTIVES OF THE UNIVERSITY**

**HISTORY OF THE ACADEMIC DIVISION**

**HISTORY OF THE MEDICAL COLLEGE OF VIRGINIA**

**BUILDINGS AND LOCATIONS**

**ACCREDITATION**

**SCOPE OF INSTRUCTIONAL PROGRAMS**

**EVENING COLLEGE**

**SUMMER SESSION**

**CENTER FOR CONTINUING EDUCATION**

**PLACEMENT SERVICE**

**ALUMNI ASSOCIATION**

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## **PART I—GENERAL INFORMATION**

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### **PURPOSES AND OBJECTIVES OF THE UNIVERSITY**

#### **Purposes:**

Virginia Commonwealth University shall endeavor to provide an educational environment nurturing and stimulating teaching, research, and service. Sensitive to the needs of urban life in the Commonwealth, it will strive to promote the pursuit of knowledge and the dissemination of professional skills.

#### **Objectives:**

To identify and anticipate urban problems; to advance experimentation and open-ended attitudes in their solution through appropriate research, and to develop the University as a planning and resource center for urban living.

To commit itself to creative and varied programs of teaching, research, and consultation, contributing to the improvement of the quality of life within urban communities.

To promote and develop programs of continuing and graduate education relevant to contemporary society.

To provide an educational climate which will stimulate in the student a lifelong commitment to learning and service; which will develop competence and motivation to work toward the realization of individual and community potentials; and which will set for the student an example of excellence.

To develop and maintain an environment of educational excellence that will attract and motivate faculty to pursue their work in accordance with the highest educational standards.

To recognize the imaginative power of the arts and humanities in reflecting the problems and aspirations of society and of the human condition; to acknowledge the role of the arts in changing behavior, and to provide opportunities throughout the University and the Commonwealth to maximize their relevance, both individually in the self-realization of the student, and publicly, in exhibition and performance.

To complement existing institutions of higher learning by providing programs of a uniquely urban character, thus enhancing the educational opportunities of the Commonwealth.

## HISTORY OF THE ACADEMIC DIVISION

The Academic Division (formerly known as Richmond Professional Institute and now one of two components of Virginia Commonwealth University) began as the Richmond School of Social Work and Public Health in September 1917. The School opened with 31 students and one full-time teacher and director, Dr. Henry Horace Hibbs.

In 1925, the Richmond School of Social Work and Public Health became the Richmond Division of the College of William and Mary. In 1939, the name of the institution was officially changed to Richmond Professional Institute of the College of William and Mary.

In 1953, Richmond Professional Institute, heretofore accredited through its connection with the College of William and Mary, was elected to full membership and accredited in its own name by the Southern Association of Colleges and Schools.

By act of the General Assembly in 1962, Richmond Professional Institute was separated from the College of William and Mary and made an independent state-supported institution, effective July 1, 1962.

The 1968 Virginia General Assembly approved a recommendation that Richmond Professional Institute be joined with the Medical College of Virginia, another state-supported institution of higher education, to form Virginia Commonwealth University. The new University came into existence on July 1, 1968.

Throughout the years of development, the school has been ably led by its chief administrators. Doctor Hibbs has been succeeded by Dr. George J. Oliver (1959-1967), Dr. Roland H. Nelson, Jr., (1967-1968), and Dr. Warren W. Brandt, elected by the Board of Visitors to serve as the new University's first president.

## HISTORY OF THE MEDICAL COLLEGE OF VIRGINIA

The Medical College of Virginia, now the Health Sciences Division of Virginia Commonwealth University, was opened in 1838 as the medical department of Hampden-Sydney College. The archives reveal no remark-

able events until 1853 when a controversy led to a rupture, and the medical department of Hampden-Sydney College became the Medical College of Virginia, an independent institution chartered February 28, 1854. When the Commonwealth of Virginia appropriated \$30,000 for the College's first hospital in 1860, MCV became a State-supported institution. In 1893, a second medical college, the University College of Medicine, opened its doors just two blocks from the Medical College of Virginia. These two were consolidated in 1913.

The hospital facilities consist of five hospitals with a total bed complement of approximately 1,100 and an outpatient department.

The present teaching program is made up of the schools of medicine, dentistry, pharmacy, nursing, graduate studies, allied health professions, hospital administration, medical technology, nurse anesthetists, physical therapy, and radiologic technology. A bachelor of science degree program in dental hygiene is offered in the school of dentistry. There are certificate programs in blood banking, cytotechnology, and x-ray technology, plus a one-year dietetic internship.

The Board of Visitors has adopted 1838 as the founding date of Virginia Commonwealth University as it is customary to date an educational institution from the date of the establishment of its earliest component.

## **BUILDINGS AND LOCATION**

The Academic Division of the University is located in a residential section of downtown Richmond with buildings on Grace, Shafer, Franklin, and Harrison Streets and Park and Floyd Avenues, beginning at Monroe Park (700 block) and extending through the 900 block to Harrison Street. Present plans call for extending the campus southward toward the James River.

The first building occupied by the RPI segment of the institution at its present site was Founders' Hall at 827 West Franklin Street, used from 1925 to 1930 for classrooms and now used as a women's dormitory. In 1930, a large mansion located at 901 West Franklin Street was purchased for use as a classroom and administration building, a purpose for which it is still serving. Between 1925 and 1959, 36 pieces of real estate were acquired, including several substantial buildings which have been adapted to educational use. Since 1959, over 25 additional pieces of real estate have been purchased; many of these properties have been razed to provide sites for new buildings for the University.

In 1951, the gymnasium building at 813-819 West Franklin Street was constructed, and an addition to this building was completed in 1958. A modern classroom building on Shafer Street, known as the Hibbs Building, was completed in 1958-59. The south wing and extension of this building was completed in 1967. A modern science building, located at 810 Park Avenue, was completed in 1962, and a west wing was added to the building in 1965.

The newest dormitory on the campus is the 19-story building named in honor of Mr. Webster S. Rhoads, Jr., a former member of the R.P.I. Board of Visitors. This modern structure houses 700 students. An apartment

building at 801 West Franklin was acquired in 1964 and remodeled to house 500 students. A converted residence building at 916 West Franklin Street serves as a student center and houses various student lounges and activities offices, including student government offices. A large office and apartment building (Franklin Terrace) at 821 West Franklin Street was acquired and remodeled in 1967 to provide for a number of classrooms and offices.

In mid 1970, the first phase of the James Branch Cabell Library and a new gymnasium were completed. Presently under construction or in the planning stages are the Pollak Art Building, a building for the school of business, an education building, and a science building.

As a modern urban institution of higher education, Virginia Commonwealth University seeks to identify with the city of which it is a part. Its campus is the community itself, although a cluster of some 12 major educational buildings comprise the heart of the Academic Center. These buildings blend the old with the new and the classic with the modern to remind one of the many facets of the larger community surrounding the institution. The University is dedicated to preserving the best of the past and to blending it with the vibrant growth of the present and the promise of the future. The University will seek to preserve this blend in its physical setting.

## ACCREDITATION

Virginia Commonwealth University is a member of and accredited by the Southern Association of Colleges and Schools, which is the general accrediting agency for colleges in this region. Individual schools or departments in the Academic Division hold membership in and/or are accredited by various other associations including the following:

- Council on Social Work Education
- American Occupational Therapy Association
- National Association of Schools of Music
- American Collegiate Retailing Association
- Virginia State Department of Education
- National Association of Business Teacher Training Institutions
- Council on Medical Education and Hospitals of the American Medical Association
- American Association of Colleges of Teacher Education
- National Association of Schools of Art

## SCOPE OF INSTRUCTIONAL PROGRAMS

The instructional programs of Virginia Commonwealth University are offered on three levels as follows: (See page 53 for listing of degree programs.)

**Associate degree programs**—leading to the associate in arts or associate in science degrees in several two-year terminal programs in technical fields or the first two years of general education in the arts and sciences.

**Baccalaureate degree programs**—leading to the B.S., B.A., B.M., or

B.M.E., B.F.A. degree in a wide variety of general and professional fields of study.

**Graduate degree programs**—leading to master's degrees in a number of general and professional fields of study. Doctoral programs are currently available in the Health Sciences Division.

### **EVENING COLLEGE**

A wide variety of courses are offered in the evening for the benefit of those students who seek to continue their education on a part-time basis and for those full-time students desiring to take part of their course work in the evening. The evening and day programs form a single educational unit with many of the regular full-time faculty members teaching evening courses. Some classes are taught in the evening because the qualified instructors required for these specialized courses are available only in the evening hours. Evening courses carry regular college credit and have the same status as regular day courses. Such courses are usually offered on campus, but may be scheduled at more convenient locations within the Richmond metropolitan area.

Although there is no limit placed on the number of credits that may be earned in the Evening College, generally, no more than 21 credits may be taken toward a VCU degree as a non-matriculated student. For these reasons, evening students who wish to earn a degree are allowed to apply for a degree seeking status through the director of admissions before they complete 21 credits. A separate bulletin of Evening College offerings is available upon request. Write to Director of the Evening College, Virginia Commonwealth University, Academic Center, Richmond, Virginia 23220.

### **SUMMER SESSION**

A variety of course offerings are available in the summer. There is a six-week session, followed by a three-week and five-week session, a nine-week summer evening session, and for those desiring to earn 12 credits during a summer, several courses are offered on Saturday morning during a 12-week period from mid-June to the end of August. For complete information and bulletins, inquiries should be directed to the summer session office, telephone number (703) 770-6731.

### **CENTER FOR CONTINUING EDUCATION**

The center for continuing education is a coordinating agent for sponsoring or assisting the various schools and departments in sponsoring non-credit adult education programs, such as workshops, institutes, seminars, in-service training programs, and television series. Programs are announced in special bulletins from time to time. For more information, inquiries should be addressed to the dean of continuing education.

### **PLACEMENT SERVICE**

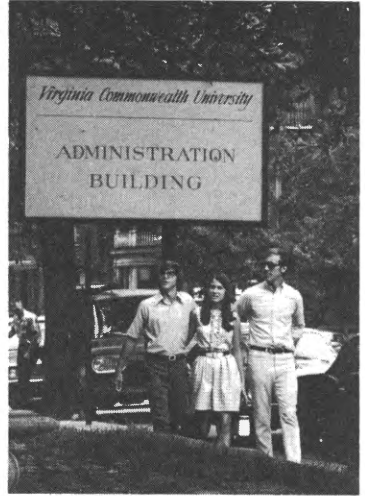
As a service to undergraduate, graduate students, and alumni, VCU operates a placement bureau. This office schedules regular campus interview



visitations with major manufacturers, business establishments, and school districts in Virginia and neighboring states.

### **THE ALUMNI ASSOCIATION**

The Alumni Association unites those who have studied at Virginia Commonwealth University. The purpose of the Association is to assist the institution in its growth and development. An alumni fund has been established to stimulate an annual giving program to aid the institution. Alumni activities are coordinated for the University by the office of development, located at 910 West Franklin Street, telephone (703) 770-7124.



## **PART II—ADMISSION REQUIREMENTS**

**INFORMATION FOR PROSPECTIVE STUDENTS**

**GENERAL REQUIREMENTS FOR ADMISSION**

**SPECIFIC REQUIREMENTS FOR ADMISSION OF FRESHMEN**

**SUBJECTS REQUIRED FOR ADMISSION AS FRESHMAN**

**ADMISSION OF TRANSFER STUDENTS**

**READMISSION**

**ENROLLMENT OF SPECIAL STUDENTS**

**SUMMER SCHOOL ADMISSION**

**ADMISSION TO GRADUATE SCHOOL**

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## **PART II—ADMISSION REQUIREMENTS**

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### **INFORMATION FOR PROSPECTIVE STUDENTS**

Virginia Commonwealth University is a coeducational state-supported institution located in Richmond, the capital of Virginia. As an urban institution of higher learning, the University provides a wide variety of instructional programs in general studies and in pre-professional and professional fields at a reasonable cost to the student.

The Board of Visitors, the administration, and the faculty of Virginia Commonwealth University are committed to a policy of equal opportunity in education without regard to race, creed, color, or national origin.

Today, after 53 years of service, the Academic Division enrolls over 12,000 students per year with approximately 8,750 of these being full-time degree seeking students and over 4,600 being part-time students. Over 800 students are pursuing graduate studies on a full-time or part-time basis. The proportion of men and women is about equal.

There are over 1,700 dormitory spaces with 1,400 of these being reserved for women students under 21 years of age. Approximately 1,200 out-of-town students live in off-campus rooms and apartments. The majority of the students commute to the University from the surrounding metropolitan area, and a large proportion of the students earn their college expenses by working at part-time jobs.

### **GENERAL REQUIREMENTS FOR ADMISSION**

Each applicant must be at least 16 years of age, a graduate of an ac-

credited secondary school, and must present a satisfactory health certificate and evidence of good character.

Students are advised to make application for admission early in their senior year of high school, especially if they are required to live in university housing. The final deadline for the fall semester is July 15, although a large number of applications may cause early closing of one or more departments. Applications for the spring semester must be received by December 1. Application forms may be secured from high school counselors or from the Director of Admissions, Virginia Commonwealth University,

Academic Center, Richmond, Virginia 23220. A \$10.00 non-refundable fee must accompany each application for admission.

New freshmen students generally are not admitted to the following divisions in mid-year: art, engineering, and engineering technology (electrical-electronics).

All candidates for admission and transfer applicants who have attempted fewer than 30 semester hours must take the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board. Candidates should take the May test in the junior year or the December test in the senior year, but later test scores are acceptable. The VCU code number for the CEEB application is 5570. For information concerning dates and places of testing, consult high school guidance officers or write to Educational Testing Service, 20 Nassau Street, Princeton, New Jersey, 08540.

There are no specific dates on which students are notified of acceptance. The admissions process is a continuous year round activity. Generally, action will not be taken on any application until all pertinent records (transcripts and test scores) are available and processed. Applications require from one to four weeks for processing after all pertinent records have been received.

When students are notified of acceptance by the University, they will also be notified of the conditions under which the University will hold a place for them in the term in which they seek to be enrolled.

All approved applicants will receive a medical form which must be properly completed and returned prior to August 15. Applicants who are accepted for admission should notify the University as soon as possible whether they wish to accept or reject this offer. The University reserves the right to cancel any offer of admission not acknowledged prior to the closing of enrollment or any application not completed by the applicant by August 15 (for the fall term).

The University also reserves the right to release copies of admission decisions and grade reports of enrolled students for the purpose of institutional research.

Prospective students and their parents are welcome to visit the campus and discuss plans with admissions counselors. Office hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday. In order to insure that a counselor and/or a school representative is available, students are advised to write or call the office at (703) 770-7221 for an appointment.

### **SPECIFIC REQUIREMENTS FOR ADMISSION OF FRESHMEN**

Consistent with the wide choice of programs available to the prospective student, the Academic Division of VCU maintains a variable policy on admissions. This means that admissions requirements may vary somewhat depending upon the particular program selected by the student.

The basic requirements for admission as a freshman are similar for each undergraduate program except that the school of the arts requires additional evidence of aptitude. Art students are required to furnish a portfolio of their achievements. Music and drama students are required to audition.

Since the number of applicants who meet the essential requirements for admission exceeds the number that can be admitted, the University selects those students who present: (a) the strongest qualifications in scholastic achievement, character, personality, and performance in extracurricular activities, and (b) evidence of aptitude for achievement in the professional or specific field of study for which the applicant seeks training.

Specifically, students are selected on the basis of: (a) their high school records (courses of study, grade averages, and rank in class); (b) academic aptitude as reflected in tests of the College Entrance Examination Board; and (c) evidence of interest and motivation as supplied through recommendations of qualified observers and personal interviews.

### **SUBJECTS REQUIRED FOR ADMISSION AS FRESHMEN**

Except for arts, arts and sciences, business, engineering, and occupational therapy, applicants for admission are not required to have completed a specified list of subjects in high school, the major factor in admission being the possession of genuine interest in and a real aptitude for the specialized subjects to be taken at Virginia Commonwealth University. In the following programs, applicants should have completed specific high school units or other requirements:

#### **Arts**

Applicants to the school of the arts will be given special assignments intended to measure, in part, the student's ability and aptitude for the field.

Portfolio requirements will be forwarded with the application for visual arts applicants. These assignments are to be done at home and will form part of the basis upon which an evaluation will be made.

Those students applying to drama are admitted only upon satisfactory demonstration of ability and genuine interest through audition and/or interview.

Applicants for the department of music must show evidence of musical training, as well as the attainment of a technical level in one or more fields of music. All entering freshmen must take the theory placement examination.

**Arts and Sciences**

Students applying to the school of arts and sciences must have four units in English, two units in algebra and one-half unit in plane geometry, two units in a foreign language, two units in a laboratory science, and two units in history or political science. Students who are otherwise acceptable, but who are deficient in units of mathematics or foreign languages, may be admitted with the understanding that they will be required to make up these deficiencies without college credit.

**Business**

Students applying to the school of business must have a minimum of one year of high school algebra. Two years of high school algebra are strongly recommended.

**Education**

Applicants to a program in secondary education will be admitted through the school of arts and sciences. Such applicants must meet the admission requirements of the school of arts and sciences and will complete lower level requirements before entering the school of education at the beginning of their junior year. Other education majors will enter directly into the school of education.

**Engineering**

Students must have four units in English, four in mathematics, one in laboratory science, one in history, and six other units. The four units in mathematics must include two units in algebra, one in geometry, and one-half unit in trigonometry. The remaining one-half unit may be in advanced algebra, solid geometry, or higher mathematics. Applicants who do not have the required units at the time of graduation from high school should attend summer school in order to qualify for full admission.

Applicants to engineering must take Achievement Tests in English and Mathematics given by the College Entrance Examination Board in addition to the Scholastic Aptitude Test.

**Occupational Therapy**

Students seeking admission to occupational therapy should have four units in English, one and a half units (preferably two units) in algebra and geometry, one unit in history or social studies, one unit in science, and other units to total 16. A foreign language is desirable.

**ADMISSION OF TRANSFER STUDENTS**

Transfer students compose a large portion of the VCU student body. Applications must be received by July 15 for the fall semester and December 1



for the spring semester, although applications from transfer students who are enrolled for the fall term in another institution are generally not accepted for the spring term.

Students with credit for one, two, or three years' previous work in accredited colleges and universities are considered for admission provided they present evidence of good standing at the institution last attended and otherwise meet specific admission requirements. A "C" average (2.0 on a four-point scale) is required for consideration for admission.

A minimum of 30 credits toward the final requirements must be completed in residence at Virginia Commonwealth University.

Students who are not in good standing at their former institutions must wait one year from effective date of ineligibility before submitting an application to Virginia Commonwealth University. This rule applies to attendance in either day or evening classes and for degree seeking and non-degree seeking applicants.

Acceptable course credits from other institutions will be recorded on the student's permanent record at Virginia Commonwealth University, together with the grades earned if they are applicable toward a degree program. Regardless of the quality of work done at other institutions, however, transfer students must maintain a "C" average in the credits earned at VCU toward a degree. Credits earned at other institutions carrying a grade of "D" generally will not be accepted for transfer. Generally, courses required in community college occupational and technical curriculums are not transferrable.

Not over 15 professional credits in education may be transferred to VCU if taken seven or more years ago.

## READMISSION

A degree-seeking student in good standing who fails to register for any given semester is required to submit an application for readmission to the office of admissions in order to become eligible to register in any subsequent term. Such forms are provided by the office of admissions. If the student has been out of school for more than one calendar year his application must be accompanied by a \$10.00 fee.

Application for readmission must be received by July 15 for the fall term and December 1 for the spring term.

Any student (degree or non-degree seeking) applying for readmission who is academically deficient is not permitted to enroll in either day or evening classes for a period of at least one semester subsequent to the first suspension or for one academic year subsequent to a second or later suspension. Eligibility for readmission must be established in accordance with procedures set forth under "Continuance in College" in the Bulletin.

The office of admissions will notify applicants whether or not the request for readmission has been approved.

## ENROLLMENT OF SPECIAL STUDENTS

Students who seek to continue their education at VCU without requesting admission to a degree program may enroll as special part-time (less than 12 credits) students in either day or evening classes for credit provided they meet the following criteria: (1) the student must be a graduate of an accredited secondary school or be a graduate of an equivalent program; (2) if he has attended another college, he must be in good standing (eligible to return to that college); (3) if he has been suspended from VCU for academic reasons, he must re-establish eligibility for future enrollment in either day or evening classes in accordance with procedures set forth under "Continuance in College" in Section V of this bulletin; (4) if he has been suspended from another college for academic reasons, he must wait for at least one academic year before enrolling; (5) if he has been suspended from VCU or another college for disciplinary reasons, he must secure the permission of the office of student affairs at VCU before he is eligible to register for classes as a special student.

All students enrolling as non-degree students will be classified as special students until they are admitted to a degree program. Credits earned as special students will be recorded, and while there is no limit placed upon the number of credits that can be taken in this classification, generally no more than 21 credits earned as a special student may be counted toward a degree at VCU. Thus, students planning to earn a degree should seek to be admitted at the earliest possible time even if they expect to continue working on their degree on a part-time basis.

It is highly desirable for special students to apply early and have transcripts and other essential credentials sent in prior to registration, either to the office of admissions or to the Evening College office (for evening classes). Special students attending as day students must obtain and file application for admission as special students no later than July 15 (for the fall term) or December 1 (for the spring term).

Those special students who are unable to apply early or prefer not to do so may obtain and file the required application as late as the last evening of registration for the Evening College. The special student will be allowed four weeks from the date classes start in which to furnish the Evening College office with the required credentials. If the credentials have not been received by the end of the four-week period, the student will be classified as an auditor and may not receive credit for the course.

## SUMMER SCHOOL ADMISSION

Matriculated students in good standing at VCU may continue their studies through the summer sessions without special records or permission. Matriculated students at VCU who have been dropped for academic deficiencies may seek to make up these deficiencies in subsequent summer sessions in accordance with procedures set forth in "Continuance in College" in the Bulletin.

Non-matriculated students seeking to enroll in the summer session must submit "Certificates of Good Standing" from the college last attended or a

**Certificate of High School Graduation or its equivalent. Such certificates must be submitted prior to the completion of the registration period to establish eligibility for enrollment in the summer session.**

**ADMISSION TO GRADUATE SCHOOL**

**A graduate bulletin describing requirements and procedures for admission to graduate programs will be sent upon request. Address inquiries to the director of graduate studies for the school that sponsors the program desired.**

## **PART III—EXPENSES AND FINANCIAL AID**

### **A. FEES AND EXPENSES**

- Application Fee and Deposits**
- Tuition Charges Per Student**
- Special Charges**
- Payment of Tuition and Special Fees**
- Fees for Dormitory Residents**
- Incidental Expenses**
- Insurance**
- Refunds and Rebates**
- Delinquent Accounts**

### **B. FINANCIAL ASSISTANCE TO STUDENTS**

- Installment Payment of Fees**
- Application for Aid**
- University Scholarships**
- Student Loan Funds**
- Other Financial Aids**
- General Comments**

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## **PART III—EXPENSES AND FINANCIAL AID**

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### **A. FEES AND EXPENSES**

It is expected that students shall pay all applicable fees enumerated in this section prior to registration for each semester. Students are reminded, however, that the University reserves the right to revise or alter all fees, regulations pertaining to student fees, and fee collection procedures whenever such revisions or alterations are deemed necessary.

#### **APPLICATION FEE AND DEPOSITS**

**Application Fee:** Each student applying for admission or readmission to the University shall pay a \$10.00 non-refundable fee. This fee shall accompany the application form sent to the admissions office.

**Dormitory Deposit:** A \$50.00 dormitory deposit is also required upon receipt of official notification of acceptance. This deposit is also non-refundable on cancellation. The dormitory deposit is not applicable to the room and board charges, but remains on deposit to be applied toward possible room damage. As such, the deposit shall be returned, minus any damage charges, when the student terminates his connection with the University.

#### **TUITION CHARGES PER STUDENT**

Undergraduate Full-time:

**Virginia Resident**

\$430 (per academic year)

**Non-Resident of Virginia**

\$900 (per academic year) 1970-71

\$940 (per academic year) 1971-72

(Note: The above tuition charges apply to all full-time students. Full-time students are those students who are enrolled for 12 or more credits in a given semester. An academic year includes two semesters.)

**Definition of Virginia Resident:** Section 23-7 of the Code of Virginia states: "No person shall be entitled to the admission privileges, or the reduced tuition charges, or any other privileges accorded by law only to residents or citizens of Virginia, in the State institutions of higher learning unless such person has been \*domiciled in, and is and has been an actual bona fide \*resident of Virginia for a period of at least one year prior to \*the commencement of the term, semester or quarter for which any such privilege or reduced tuition charge is sought, provided that the governing board of such institutions may require longer periods of residence and may set up additional requirements for admitting students."

**Exceptions to Tuition Charges:** The above tuition charges apply to all full-time undergraduate students except:

- (a) Engineering students on the quarter system in cooperation with VPI. (See school of engineering.)
- (b) Occupational therapy students in their clinical year of training, for which there is a yearly fee of \$120.00.

**Undergraduate Part time:** Part-time undergraduate Virginia resident students shall be charged \$18.00 per semester credit in day and evening classes.

Part-time undergraduate non-residents shall be charged \$35.00 per semester credit in day and evening classes.

**Graduate Full time and Part time:** All fees pertaining to graduate students are listed in the graduate bulletin.

## SPECIAL CHARGES

Because of specialized programs, various schools and departments charge each student additional fees to cover special materials, equipment breakage, etc.

The following minimum semester fees are charged for those students registering in the specified courses:

### School of the Arts:

Foundation Program—\$25.00 per semester to cover all art classes

Art History—307, 308—\$10.00 per course

Music—Private lessons. Refer to page 74. Rental of practice rooms \$15.00 per semester.

For students enrolled in the division of design and the fine arts division there is a \$5.00 sustaining supplement charged for each studio course.

Numerous courses require an additional outlay for materials, and such fees are collected within the departments.

**Department of Chemistry:** Each student is charged for breakage incurred. Regular safety glasses are required.

**School of Education:** 407—\$5.00 fee.

Physical Education—117W, 117M, 217W, 217M, 220W—\$7.00 per course.

**Department of Retailing:** 116—\$7.50 fee.

**Non-recurring Fees (undergraduate)**

Application Fee .....	\$10.00
Graduation Fee	
(includes: diploma and use of cap and gown during the senior year.)	
Bachelor's degree .....	14.00
Associate degree .....	12.00
Change in Registration (after add/drop) . . . . .	3.00 per course
Late Registration (full-time students) . . . . .	10.00
Room Change .....	5.00
Transcript Fee .....	1.00 each (after three free copies)
Rental of Parking Space (when available) . . . . .	5.00 per month
Excess Credits (students enrolled for more than 19 credits per semester) . . . . .	19.00 per semester credit

**Student Activities Fee:** All full-time undergraduate students shall be required to pay a comprehensive fee covering student activities scheduled throughout the school year (concerts, plays, athletic events, etc.). The comprehensive fee shall be \$12.00 per semester.

All undergraduate part-time day students (those carrying seven through 11 credits) shall be required to pay a \$5.00 per semester comprehensive student activity fee.

**PAYMENT OF TUITION AND SPECIAL FEES**

Tuition is payable by the semester as follows:

	Virginia Resident	Non-Resident of Virginia
First Semester—by		
July 15 .....	\$215.00	\$450.00*
Second Semester—by		
January 15 .....	215.00	450.00*
<b>TOTAL TUITION PER ACADEMIC YEAR</b>	<b>\$430.00</b>	<b>\$900.00*</b>

\* Non-Virginia residents' tuition for 1971-72 will be \$470 per semester or \$940 per academic year.



**Special charges and fees** are due and payable at the time of payment for each semester's tuition charges.

## FEES FOR DORMITORY RESIDENTS

The charges for matriculation, tuition, and other instructional services are the same for dormitory residents as for commuting students. Other charges for the dormitory resident for the academic year:

Room rent	
Rhoads Hall .....	\$470.00
Johnson Hall .....	440.00
Other dormitories .....	420.00
Room Deposit and Damage Fee .....	50.00
Laundry .....	30.00
Infirmary .....	32.00
Board	
Full-board plan (21 meals per week) .....	440.00
A la carte Cafeteria (approximately) .....	480.00
(The meal plans are described more fully in the section below.)	

**Room Rent:** Each student for whom dormitory space has been reserved will receive a notice from the housing office specifying a date by which a deposit of \$50.00 must be received by the University. Room rent is payable at the time other tuition and fees are due. Rooms in dormitories are rented for the entire academic year of nine months. Exceptions may be made for students who complete their course of study at the end of the first semester or, for other reasons satisfactory to the University, have arranged in advance at the time of enrollment to rent a room for one semester only. Women students who marry during the school year will be required to move out of the dormitory. Certain exceptions may be granted by the dean of women. (No refund or rebate of room rent is made for any cause after the dates for closing room reservations as stated above; subletting is not permitted.)

**Board:** All freshmen and sophomore students who live in University dormitories are required to take their meals in the University dining facilities.

**Full-Board Plan:** Dormitory students. All freshmen and sophomore students who live in the University dormitories are required to take their meals in the University dining facilities. The University administration believes the full-board meal system will be more satisfactory and more economical in most cases. This plan provides 21 meals per week for students; seconds are permitted. The cost is \$440.00 for the school year.

**Cafeteria:** Students living off-campus may subscribe to full-board plan to the extent that space is available. Students not on the full-board plan may use the cafeteria on a pay as you go basis.

Summary of semester charges for dormitory resident students using the full-board plan (in addition to application fee and room deposit):

Tuition .....	\$215.00
Room (minimum) .....	210.00
Meals .....	220.00
Laundry .....	15.00
Infirmary .....	16.00
Student activity fee .....	12.00
	<hr/>
	\$688.00

The \$688.00 is due July 15 for the first semester and January 15 for the second semester.

Summary of semester charges for dormitory resident students not on the full-board plan (in addition to application fee and room deposit):

Tuition .....	\$215.00
Room (minimum) .....	210.00
Laundry .....	15.00
Infirmary .....	16.00
Student activity fee .....	12.00
	<hr/>
	\$468.00

The \$468.00 is due July 15 for the first semester and January 15 for the second semester.

### INCIDENTAL EXPENSES

It should be stressed that a student will incur at college not only those expenses for which he is billed by the school, but will, in addition, pay for clothing, books, supplies, travel, and many out-of-pocket expenses.

A student should therefore plan to make allowances for such expenses in figuring the cost of each year at the University.

### INSURANCE

Virginia Commonwealth University is not responsible for accidents occurring to students in connection with class, laboratory, shop, field work, athletics, student activities, travel, or other activities. The University offers to its students, however, through the North America Assurance Society of Virginia, a group student accident and hospitalization insurance plan whereby the students are covered for 12 months, beginning in September, whether in school during the summer months or not, for \$22.50; coverage is offered also for the nine-month school year for \$17.50. Students are insured for the medical expenses resulting from accidents up to a cost of \$1,000 including hospitalized sickness benefits. A student participating in athletics is required to obtain the above insurance. Such a policy is offered by a number of insurance companies. For further information, write the Bursar, Virginia Commonwealth University, Academic Center, Richmond, Virginia 23220.

A small comprehensive fire, water, and theft insurance policy on student property is recommended as the University is not responsible for losses due to fire or theft or water damage.

## REFUNDS AND REBATES

A full-time student who withdraws in good standing shall be entitled to a refund of a portion of his tuition, board, health fee, and laundry for the semester in which he is currently enrolled. He shall not be entitled to a refund of any non-refundable fee as indicated in certain sections of this bulletin.

**Request for Refund:** A request for a refund shall be made in writing to the university auditor before said request can be considered. Each request must be made in compliance with the following schedule:

	Portion to Fees Refundable
Within first 5 days of semester . . . . .	90%
Within 30 days . . . . .	75%
Within 60 days . . . . .	50%
After 60 days . . . . .	no refund

**Refund to Part-time Students:** Refunds will be made to part-time students only in case of illness certified by a physician. Whenever a part-time student is approved for a refund, the refund will be made on the same basis as that applying to full-time students.

## DELINQUENT ACCOUNTS

The University will not issue a degree, transcript of grades, or grade reports to any student who has not paid all charges in full. Students whose accounts are not paid in full may not be admitted to final examinations at the end of semesters.

### B. FINANCIAL ASSISTANCE TO STUDENTS

Virginia Commonwealth University maintains a financial aid office which offers financial assistance, when possible, to deserving and qualified students in an effort to help these students overcome financial obstacles relative to the attainment of a degree.

## INSTALLMENT PAYMENT OF FEES

The University does not offer a financial aid plan for direct payment of semester charges on an installment basis. For those parents who wish to pay for college in installments, the University recommends application to the Tuition Plan, Inc. The plan makes money available only for those expenses for which a student is billed by the University.

A descriptive brochure on the plan may be secured from the Tuition Plan, Inc., 575 Madison Avenue, New York, New York 10022.

## APPLICATION FOR AID

The financial aid office provides an application that pertains to all financial assistance offered by the University with the exception of departmental scholarships, grants, and assistantships which must be applied for directly through the respective departments involved. Students may request the

mailing of an aid application by writing in care of this office. An indication should be made as to the marital status of the applicant.

### UNIVERSITY SCHOLARSHIPS

In determining a student's financial need for scholarship assistance, Virginia Commonwealth University utilizes the College Scholarship Service. Freshmen and upperclassmen must submit different forms to different places, as indicated below:

	Form Used	Where Obtained	Where Returned
<i>Freshman</i>	Freshman Parents Confidential Statement	High School Counselor or Financial Aid Office Virginia Commonwealth University Academic Center Richmond, Va. 23220	College Scholarship Service (see address on form.) Mail by April 1.
<i>Upperclassman</i>	Renewal Parents Confidential Statement	Financial Aid Office Virginia Commonwealth University Academic Center Richmond, Va. 23220	same as above

**Scholarship Aid Available:** The following scholarships are available at the University to be granted to deserving and qualified students:

**President's Scholarships.** Each year, president's scholarships are awarded to the rising sophomore, junior, and senior who have achieved the highest grade point averages in the University. These scholarships are awarded solely on the basis of academic average, with no regard to financial need.

**Undergraduate Scholarships for Virginia Residents.** These scholarships are awarded to undergraduate students who are residents of the Commonwealth and who demonstrate financial need and academic promise. Inquiries should be directed to the financial aid office.

**Departmental Scholarships.** Several schools and departments have limited scholarships restricted to students enrolled in that particular school or department. Inquiries should be directed to the head of the school or department concerned.

### STUDENT LOAN FUNDS

**National Defense Loans.** Under the National Defense Student Loan Program, as provided for by the National Defense Education Act of 1958, amended, a needy and capable undergraduate student may borrow funds to cover costs directly related to college charges for which the University bills him. Any full-time or half-time student (half-time must carry at least eight credit hours) or prospective student who has been formally accepted for enrollment in a degree program or who is enrolled in such a program

may apply for a loan. Contact the financial aid office for details of loan application procedures, interest accumulated, and method of repayment.

**Federal Guaranteed Loans.** Under the Higher Education Act of 1965, a student can obtain a loan to complete his college education. A student may apply for one of these loans through a participating commercial bank located in the state in which he resides. In Virginia, the Commonwealth (through its agent, the State Education Assistance Authority) and the Federal government co-guarantee 90 percent of the principal of these loans. For Virginia residents, a brochure describing the program and a list of participating banks may be obtained from the State Educational Assistance Authority, 1116 United Virginia Bank Building, Richmond, Virginia 23219 or from the University financial aid office.

**Cuban Student Loan Program.** This program provides for loans, under terms similar to the terms of the National Defense Loan Program, for Cuban students who, because of current political conditions in Cuba, are unable to obtain funds. Interested students who qualify should write the financial aid office for applications and information.

**Johnson Memorial Loan Fund.** These loans are available in limited amounts. The fund is maintained by donations from friends of the University. Inquiries should be directed to the financial aid office.

**Student Government Association Loan Fund.** The Student Government Association has a limited number of loans to be granted in modest amounts. These loans are available to full-time students who meet the qualifications of scholastic achievement, character, and need. Inquiries should be directed to the financial aid office.

**Departmental Loans.** Several schools and departments have limited loans restricted to students enrolled in that particular school or department. Inquiries should be directed to the head of the school or department concerned.

## OTHER FINANCIAL AIDS

**Educational Opportunity Grants.** As provided for under the Higher Education Act of 1965, educational opportunity grants, are non-repayable and are available for exceptionally needy students who, but for one of these grants, would not be able to attend college. Proposed chiefly for incoming freshmen, additional awards may be made for past expression of academic success. Awarded to undergraduates only, these grants are restricted by law to those students who are receiving, in the estimation of the Scholarship and Loan Committee, sufficient and reasonable help from parents.

**Work-Study Jobs.** Many students will be offered the opportunity to work in "work-study" jobs. These jobs, which are on and off-campus, often are ordinary student jobs, except that the work-study worker must be paid at least the currently prevailing Federal minimum hourly wage. The jobs consume a maximum of 15 hours per week. Ordinarily, a student who is awarded a work-study job will be assigned to a particular department prior

to his arrival on campus. Some few students with particular skills may not be assigned until arrival on campus.

It is most important that a student who is awarded a work-study job should expect to receive this portion of his aid in bi-weekly installments. A work-study recipient, therefore, should use his work-study earnings for such expenses as books, supplies, clothing, and other regularly recurring expenses. Work-study earnings are not credited directly to tuition, room, or board. Applications must be filed with the financial aid office for consideration.

**Law Enforcement Grants and Loans.** A limited number of grants are awarded to students working toward improving their skills and knowledge under the law enforcement program while working for an accredited law-enforcement agency. Loans are available for full-time students. Applications must be filed at the financial aid office.

**Part-time Employment.** A number of jobs, other than those described above, are available on campus to any student. Students who desire only a part-time job and no other financial aid should request an application for part-time employment from the financial aid office.

**Other Aid Sources.** Many churches, fraternal organizations, civic groups, and businesses offer aid to students. As this aid is often not widely publicized, interested students should investigate possibilities in their own communities, states, and regions.

**Graduate Students.** Besides the financial aid mentioned above, graduate students enrolled in certain schools or departments (e.g., school of social work, department of rehabilitation counseling) may be eligible for scholarships, loans, or assistantships. The specific school or department should be contacted regarding this aid.

## GENERAL COMMENTS

Information and applications on financial aid may be obtained from the Financial Aid Office, Virginia Commonwealth University, Academic Center, Richmond, Virginia 23220. All applications should be returned as soon as possible in order to give each student the benefit of sound financial counseling.

Deadlines by which applications for financial aid should be submitted (both by currently enrolled students and by new students) and dates for availability of applications are indicated below:

<i>Financial Aid to Cover</i>	<i>Application Available</i>	<i>Date to Return</i>
September-June	October 15	April 1
February-June	October 15	December 1
Summer Session	April 1	April 30

## **PART IV—STUDENT LIFE**

**INTRODUCTION**

**STUDENT HOUSING**

**CAFETERIA**

**HEALTH SERVICE**

**COUNSELING SERVICE**

**STUDENT GOVERNMENT**

**STUDENT LAW**

**GENERAL REGULATIONS**

**Discipline**

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**ORIENTATION**

**CLUBS AND ORGANIZATIONS**

**ATHLETICS AND INTRAMURALS**

**STUDENT PUBLICATIONS**

**AUTOMOBILES**

**STUDENT IDENTIFICATION**

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## **PART IV—STUDENT LIFE**

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### **INTRODUCTION**

One of the great advantages of an urban institution such as Virginia Commonwealth University is its dynamic interaction with the surrounding community providing religious, cultural, and entertainment opportunities to its students. The activities of the University supplement those of the Richmond area, and one finds students and faculty attending and participating in nearly every phase of the life of the community. As VCU offers many cultural and educational programs, citizens of the Richmond area are frequent guests of the University.

Nearly every denomination has a religious facility within walking distance of the institution, and many have assigned clergymen to work closely with the students. This provides students with opportunities for worship, discussion, and counseling with members of their religious faith.

Dramatic presentations in Richmond are considerable in number, and many groups offer reduced rates for students. Musical comedies, operas, ballets, concerts, and excellent drama are brought to the Mosque and other theatres in the area. Productions of the department of dramatic art are highly respected by students and Richmonders alike, and one act plays provide the non-drama major with an opportunity to participate in dramatic works.

The VCU department of music presents a wide variety of programs. Student and faculty recitals, concerts by the choral group and the orchestra, as well as some of the specialized ensembles, fill the calendar and provide ample opportunity for hearing fine music both on and off campus. The Richmond Symphony Orchestra, an excellent musical organization, offers six concerts per year. These are open to students at reduced rates.



Many students find part-time jobs in the city, some on a volunteer basis and others for pay. These opportunities broaden their outlook and may help defray the cost of education.

## STUDENT HOUSING

On-campus housing facilities provide a diversity of physical structure to meet the housing needs of students. Approximately 1,900 students live in University residence halls which vary in capacity from 20 to 700 and in style from old, stately homes and mansions to modern, high-rise dormitories. Thus, during his college career the student will have an opportunity to experience the rewards and demands of small and large group living.

All undergraduate women students under 21 years of age are required to live in dormitories unless living with their parents. Out-of-town males, who are in their freshman year of attendance at VCU, are required to live in men's dormitories.

Acceptance by the University does not guarantee housing facilities to the new student. Those women students who fall under the residence requirements as outlined above may be placed on a waiting list until space becomes available. Requests for exceptions to the residence rule must be submitted in writing on forms obtained from the housing office.

All rooms are adequately furnished, but some students wish to add personal touches and conveniences of their own. As the buildings vary in age and occupancy, it is best to wait until arrival to decide on the extra furnishings. Students provide their own pillows, bedspreads, and blankets. Towels, bed linen and laundry service are furnished.

Rooms in the dormitories are rented for the academic year of nine months unless other arrangements are made. The student, or the parent or guardian, contracts to pay the rent for this period; refunds are not made in case of withdrawal, except under unusual circumstances.

## CAFETERIA

All freshmen and sophomore dormitory students are required to participate in the full-board plan for meals unless specifically excused by the University after written appeal. The cafeteria is open for commuter students for all meals.

## HEALTH SERVICE

The Academic Division provides a small but well-staffed health service. Richmond has several well-staffed and equipped hospitals and laboratories as well as specialists in all fields of medicine. These facilities are used to supplement the University services in a way best suited to students' needs.

Dormitory residents are required to subscribe to the health service which maintains an infirmary, nursing care, and consultation service with the Uni-

versity physicians as well as an excellent referral system to the medical community. A limited number of non-dormitory residents are also allowed to register for the health service.

The **Compass**, a student handbook, contains more explicit information and regulations for dormitory students.

## COUNSELING SERVICE

The purpose of the counseling center at Virginia Commonwealth University is to counsel any student desiring vocational, academic, or personal help. The counseling center's objective is to promote self-understanding and self-direction for the individual student by giving the student the opportunity to see realistically his abilities, capabilities, interests, and needs in his social and academic surroundings.

Other services provided by the University are referrals consisting of more intensive personal counseling, depending upon the needs of the individuals and vocational and personal direction.

While many students are referred to the counseling center by faculty advisers, the student should feel free to seek on his own the services offered by the counseling center.

## STUDENT GOVERNMENT

As an educational institution is a multi-faceted organization, it is essential that all members of the academic community contribute to its life and growth. There are many opportunities for student participation in the life of the University, and the institution looks in part to the Student Government Association for such contributions. This organization is an established channel of communication between the student segment of the community and the representatives of faculty, administration, alumni, and outside agencies.

Through the offices of the Student Government, representatives are nominated to various committees which participate in the formulation of University policies and procedures.

## STUDENT LAW

The student law of Virginia Commonwealth University has been adopted by the students in order to protect members of the University community from infringement upon their rights. These rights are truthfulness, fairness, and security of property. Students reason that it is only as they are willing to protect the rights of others that they have any claim to the protection of the same rights for themselves. Students are encouraged to know and adhere to the specific principles of the student code, and each person who becomes a member of the University student body by this action assumes of his own will certain responsibilities which include voluntary observance of the system of student law.

## GENERAL REGULATIONS

### Discipline

Students should remember that when they enroll at VCU they become members of both a university and an urban community. They should respect the rights of all of their fellow members of these communities and be considerate and tolerant of their attitudes and feelings. In order to establish clear guidelines for student behavior, rules and regulations on student life are published in the **Signpost** and distributed to students annually.

Registration as a student implies that the student will familiarize himself with the rules and regulations as long as he remains a student at the University or participates in any way in its activities.

To help in the administration of these regulations, the University has vested disciplinary power under the office of the dean of student life and the discipline committee, which is composed of students and faculty appointed by the president of the University.

## APPEALS

Whenever a student is expelled or suspended from Virginia Commonwealth University, such person shall have the right to appeal in writing to the president of the University through the vice president for student affairs within 30 days after the action of which he complains.

## ORIENTATION

To insure each student the opportunity to make the most of University facilities and services, the orientation program is conducted at the beginning of each semester for all freshmen and transfer students. This program marks the beginning of the academic session, and new students are required to be in attendance. More detailed information, including dates, is provided in the calendar in this Bulletin and in notices sent from the office of the dean of student life.

## CLUBS AND ORGANIZATIONS

For nearly every interest, personal or professional, there is an organization on campus in which extra-curricular activities are supported. Many hold joint meetings with affiliated associations in the city, and students have an opportunity to meet, to discuss ideas, and to carry out programs with professional men and women in their fields of interest.

## ATHLETICS AND INTRAMURALS

Opportunity is provided for participation in the following intercollegiate sports:

For men: Basketball, golf, wrestling, baseball, crew, and swimming.

For women: Basketball, tennis, field hockey, and swimming.

A well-organized intramural program in a variety of sports is conducted for both men and women.

### STUDENT PUBLICATIONS

**Commonwealth Times.** Students write, edit, and publish the *Commonwealth Times*, a newspaper sponsored by the department of journalism. In its pages are found campus news, letters to the editor, and editorials covering timely topics.

**Cobblestone.** The Academic Division's yearbook, published annually by a student staff, is partially supported by the student activities fee.

**Spectrum.** This award winning magazine is published by students of the University to encourage the development and expression of creativity in writing. It is partially subsidized by the student activities fee.

**Signpost.** This publication is the guide to student life and includes descriptions of:

- (a) Student activities and the Student Government Association
- (b) General regulations
- (c) General academic information
- (d) Code of conduct.
- (e) The system of student law
- (f) Student Government Association Constitution

### AUTOMOBILES

Dormitory students are not allowed to have automobiles except by special permission of the dean of student services.

### STUDENT IDENTIFICATION

Students must carry their ID cards with them at all times and be ready to show them to any authorized University official who might request their identification. ID cards must be obtained by the end of the first week of classes. Cards issued after that will cost \$3.00. Any student who loses an ID card must apply to the office of the registrar for purchase of a duplicate.

## **PART V—ACADEMIC REGULATIONS**

**ADVISING PROGRAM**

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**CONTINUANCE IN COLLEGE FOR DEGREE SEEKERS  
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## **PART V—ACADEMIC REGULATIONS**

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### **ADVISING PROGRAM**

Students are responsible for knowing and fulfilling all general and specific requirements relating to the completion of their degree program.

The heads of schools and departments, in cooperation with faculty advisers, endeavor to follow carefully each student's academic progress. Beginning with registration, a student is assigned to a faculty adviser who, in addition to giving academic counseling, is available for advice on vocational and personal matters. Students are encouraged to seek counsel whenever there is a need. If a faculty adviser is unable to resolve a problem satisfactorily, the student will be referred to the counseling center, to student personnel, or academic officers, as appropriate, or to the dean of student life for additional help and counseling.

### **ATTENDANCE REGULATIONS**

The instructional program at VCU is based upon a system of class meetings involving lectures, discussion, and special reading and reporting assignments. Therefore, it is important for each student to be in attendance on a regular basis. There is no system of "cuts." If a student must miss a class session, he is expected to have sufficient initiative to make up for himself the material missed. Absences for sicknesses, athletic trips, and class field trips are the responsibility of the student. Instructors are not required to provide make-up examinations for students who miss such examinations.

If the student continues to miss classes after receiving an attendance warning, he may be dropped from the course at the instructor's discretion. Any

student who attends fewer than 75 percent of the class sessions will be dropped automatically with a grade of "F."

### CHANGE OF MAJOR

If a student wishes to change his major area of concentration, he may initiate this change under the following conditions:

- a. He must be eligible for continuance in college on the basis of all credits attempted at the time he applies for a change of major and also for the semester his change of major becomes effective.
- b. A change of major must be accepted by the dean of the school or chairman of the department to which the student expects to transfer.
- c. A student may submit a change of major form to the office of the registrar at any time. Change of major requests, however, will not be processed during an examination period, during an advance registration period, nor during a regular registration period. Change of major forms may be obtained in the office of the registrar.

### CHANGE IN REGISTRATION

Once a student and his adviser have planned the student's program and the student is registered, it is expected that the student will not change his registration except for special reasons approved by the student's adviser.

**Add/Drop Procedure.** Changes in registration will be allowed during the add/drop period provided the following procedure is followed:

- a. All registration changes for a student must be recommended and approved by his faculty adviser. Add and drop forms are provided by the adviser or registrar's office for this purpose.
- b. The student must secure the approval of the dean of the school or chairman of the department of the courses added or dropped.
- c. The student submits the add/or drop forms to the registrar's office (within the designated add/drop period) after the necessary signatures of approval have been obtained. Courses dropped during the add/drop period do not become a part of the student's permanent record.

**Changes After the Add/Drop Period.** No courses may be added after the add/drop period. Courses should be dropped only under justifiable circumstances.

If a student drops a course without official notification to the registrar, a grade of "WF" will be assigned for that course on the permanent record.

Approval to drop a course during the last three weeks of class instruction of a semester will be granted only under unusual circumstances. A grade of "F" is automatically assigned in cases of continuous non-attendance during this period.

## CLASSIFICATION OF STUDENTS

All students, both full time and part time, are classified by credits earned as follows:

Freshmen	1 to 23 credits
Sophomores	24 to 53 credits
Juniors	54 to 84 credits
Seniors	85 credits and above

The social or class standing of all students is identical with their academic classification.

## CONTINUANCE IN COLLEGE FOR DEGREE-SEEKERS AND SPECIAL STUDENTS

### Satisfactory Progress

In order to be making normal progress, a student should maintain at least a "C" average on all work attempted at this University. Since the grade of "C" carries two grade points per semester hour, the student should thus have no fewer than twice as many grade points as semester hours attempted.

### Grade Point Deficiency

If the student's cumulative grade point total is less than twice the number of semester hours attempted, he is said to have a grade point deficiency. (For example, if a student has attempted 32 semester hours, his grade points should total 64. If, in fact, his grade points total only 52, the deficiency is 12.)

In the calculation of semester hours attempted, all work attempted at this University is counted, regardless of whether or not certain courses are applicable to the major program which the student is pursuing or intends to pursue at the time of calculation.

### Academic Warning

A student is placed on academic warning if at the end of any semester his cumulative grade point deficiency is more than nine but less than 21.

### Academic Suspension

A student is automatically suspended from this University at the end of any semester in which his cumulative grade point deficiency exceeds 20. In addition—and regardless of his cumulative grade point total—a student is suspended if his deficiency for any given semester exceeds 20 for that semester alone. The sole exception to these rules is that no freshman is suspended for academic reasons at the conclusion of his first semester at this University.

A student under suspension from Virginia Commonwealth University may not take course work at another institution for transfer to Virginia Commonwealth University.



**Eligibility to Return**

A student under suspension may establish eligibility to return to VCU in the fall semester by attending summer school at VCU and reducing his cumulative grade point deficiency to 20 grade points or less.

A student who attends summer school, but fails to establish eligibility in the summer school, may apply for readmission for the following spring semester. If readmitted, he must reduce his deficiency during that semester and each subsequent semester until his deficiency is no more than 20. If he fails to do so, he will be suspended for the second time.

**Second Suspension**

Although students who have twice been suspended from VCU are not normally readmitted, exceptions are made on occasion by the appropriate faculty committee upon written petition to the registrar via the student's academic dean or department chairman.

**Deadlines for Application for Readmission**

Application for readmission to the spring semester must be received by December 1; and for the fall semester by July 15.

**CONTINUANCE POLICY FOR UPPER CLASSMEN**

All students entering RPI prior to September, 1968, who have been in continuous attendance since entering (except for summers) may elect to follow the "continuance" policy in effect prior to that date.

**CONTINUANCE POLICY FOR READMITTED STUDENTS**

If a matriculated student at VCU (RPI) withdraws from the University and if he is eligible to continue at the time of his withdrawal, he shall be eligible for readmission. If, however, upon readmission he has a deficiency of more than 20 grade points, he must, in order to remain eligible to continue, show continual improvement in each successive term until he reduces his cumulative grade point deficiency to 20 grade points or less, or he shall be subject to suspension.

**DEGREE REQUIREMENTS**

In addition to the course requirements indicated in the curriculum outlines, candidates for any degree are governed by the following policies:

**Degree Program.** An overall grade point grade average (GPA) of at least 2.00 (a "C" average) is required on all work presented for graduation for either an associate or bachelor's degree.

**Total Credits Required.** The total number of semester credits required for graduation depends upon the type of degree. Specific information may be found under the several degree program descriptions in Part VI of this Bulletin.

**Major Concentration.** An overall grade point average of at least 2.00 is required in the courses that comprise the student's major.

**Transfer Students.** Transfer students are required to earn an overall grade point average of at least 2.00 on all work attempted at VCU which is to be presented for graduation either an associate or bachelor's degree at this University.

**Upper Level Courses.** A minimum of 45 credits are required in courses numbered 300 and 400 for bachelor degrees. Credits transferred from two-year institutions may not be used for upper level requirements.

**Resident Requirement.** Applicants are required to complete the last 30 credits at this institution for either an associate or bachelor's degree.

**Armed Forces Service.** Any student who has completed a minimum of six months' active service in any branch of the armed forces and who presents to the registrar's office proper proof of such service will be allowed up to four semester credits which can be applied only to satisfy required courses in physical education.

**Correspondence Courses.** Credits earned through correspondence courses are not acceptable toward a degree at VCU.

**Semester Credit Limitation.** A student who fails to meet degree requirements in any program after attempting a total of 150 semester credits will be denied further attendance unless he has the expressed approval of the academic status committee. Attendance at other colleges will be equated on the basis of the number of semester credits accepted toward the degree program.

**Degree Application Deadline.** Each student who expects to complete his degree requirements by the end of a term is required to file an application for degree at the registrar's office no later than November 1 for the fall semester, December 1 for the spring semester, or July 15 for the summer session.

## GRADE REPORTS

Reports showing the standing of students in their courses are sent to parents or guardians at the middle and at the end of each semester. Mid-semester grades are not recorded on the student's permanent record, but the grades indicate the student's progress in each course at that point.

Students who have reached their 21st birthday may request the registrar to have all grade reports sent directly to them. Students under 21 may have grade reports sent to them provided they submit to the registrar a written statement from the parents approving such action.

## GRADING SYSTEM

**Grades and Grade Points.** College course work is measured both in terms of quantity (semester hours of credit) and quality (grades). Grades are assigned according to a letter system with each letter being assigned a grade point value. The letter grades and grade point values are as follows:

Grade Symbol and Meaning	Grade-Point Value per Semester Credit
A—Superior	4
B—Good	3
C—Average	2
D—Passing	1
F—Failing	0
I—Incomplete	0
W—Withdrawn	0
WF—Withdrawn Failing	0
WP—Withdrawn Passing	0
AB—Absence from final examination	0
AU—Audit	0

The above scale is known as the four-point grading system since four is the highest grade-point value assigned.

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. 4 grade points) in the first semester of freshman English (3 credits) receives 12 grade points.

**Grade-Point Average.** The grade-point average (GPA) is computed by dividing the number of grade points earned by the number of credits attempted.

**Grade of "D".** Subjects passed with a "D" grade or higher may not be repeated. The one exception to this policy is as follows: the chairman of the department concerned may recommend that a course be repeated if the course is specifically required in the major concentration and if there is no appropriate substitute. This recommendation should be made only in unusual circumstances and must be approved by the dean of the school involved. If a course with a "D" grade is repeated, the semester hours attempted and the grade points earned for both attempts are included in computing the cumulative grade point average.

The dean of the school concerned may also recommend that a student strengthen his background by repeating a "D" course on an **Audit** basis.

**Grade of Incomplete.** A grade of Incomplete presupposes that the student is doing passing work on the completed portion of the course but, because of illness or other emergency situations, is unable to meet all of the requirements of the course by the end of the term. A mark of Incomplete should not be given without an understanding between the instructor and the student. The maximum time limit for the removal of an Incomplete is the end of the last day of classes of the next semester following the semester (or summer session) in which the Incomplete was incurred. At the end of the succeeding semester, an unremoved grade of Incomplete is automatically changed to a failing grade. Exceptions to this procedure must be approved by the dean of the school involved upon the recommendation of the instructor prior to the time limit, and a statement must be filed with the registrar.

**Grade of W.** Withdrawn indicates that the student has officially dropped a course before the mid-semester reports for any given semester have been filed.

**Grade of WF.** Withdrawn failing indicates that a student was failing the course at the time of an official drop, after the mid-semester reports are filed and prior to the last three weeks of class instruction of a semester.

**Grade of WP.** Withdrawn passing indicates that a student was passing the course at the time of an official drop, after the mid-semester reports are filed and prior to the last three weeks of class instruction of a semester.

Students are not permitted to drop a class during the last three weeks of class instruction of a semester. A grade of "F" is automatically assigned in cases of non-attendance during this period.

**Grades of "I," "AB," and "WF"** are included in the courses attempted by a student during a semester, whereas grades of "W" and "WP" are not considered a part of a student load attempted in a given semester.

**Absence from Final Examination.** If a student is excused from the final examination by one of the student personnel deans, the instructor should report an "absence" (AB) on the grade sheet. If the student's absence is not excused by a student personnel dean, he is automatically given "F" in the course. Students are not permitted to take a make-up examination without official permission from the student personnel office. Approved make-up examinations should be taken at the earliest possible opportunity after the final examination is scheduled. In this connection, students who miss a final examination due to an emergency must notify the student personnel office within 48 hours after the examination is scheduled to begin.

**Audit.** Upon the approval of the student's adviser and class size permitting, a student may register for a course on an audit basis. Audit students are charged the regular rate of tuition and fees, and an audit course is counted as a part of the student's semester load. A student registered on an audit basis, however, is not subject to attendance regulations and is not required to take tests or the final examination. Students enrolled for audit are not given a grade, and their records are marked "Audit."

A change in registration from "Audit" to "Credit" or vice versa must be effected during the add/drop period. A course taken for audit cannot be given credit by examination at a later date.

## MATRICULATION

A student has matriculated when he has been admitted as a regular undergraduate student in a degree program. All degree candidates must be matriculated students. Non-matriculated students are classified as "special" students. Special students desiring degree-seeking status must file an application for regular undergraduate admission.

Degree programs are outlined in Section VI of this Bulletin.

## SCHOLARSHIP HONORS

**Dean's List.** A student is placed on the dean's list for one semester if he has made a grade point average of 3.50 in the preceding semester, based on a minimum load of 15 credits with no grade below "C." Students with grades of Incomplete or absent from the final examination are not eligible for the dean's list.

**Graduation Honors.** Candidates for a bachelor's degree are eligible for special scholarship recognition under the following conditions:

**High Honors.** Students with a cumulative grade point average of 3.60 or above through the first semester of the senior year on all courses attempted toward the degree awarded.

**Honors.** Students with a cumulative grade point average of 3.30 or above through the first semester of the senior year on all courses attempted toward the degree awarded.

A transfer student to qualify for graduation honors for the baccalaureate degree is required to complete a minimum of 45 credits by the first semester of his final year at this institution with a scholastic average at VCU of 3.60 for high honors or 3.30 for honors, supported by equivalent performance on all credits attempted elsewhere to make a combined average of 3.60 for high honors or 3.30 for honors.

Recognition of graduation honors will be made on the student's diploma, his permanent record, and in the Commencement program.

## STUDENT LOAD

A semester credit, the unit by which courses are measured, is defined as one hour per week of lecture-recitation or not less than two hours per week of laboratory work throughout a semester.

**Full-time Students.** The normal full-time student load constitutes a minimum of 12 credits and a maximum of 19 credits. The maximum load is approved only when there is every evidence that the student can carry such a load successfully.

**Part-time Students.** A student is classified as "part-time" if during any semester he is registered for no more than 11 credits. The term "part-time" applies to degree-seeking students, as well as to non-degree-seeking students.

**Overload.** Permission for overloads (20-21 credits) are approved only in the following cases:

- a. A senior in good standing who by taking no more than 21 credits can be graduated in the current academic year.
- b. A student in good standing who has earned at least 60 credits toward degree requirements and who has an academic average of "B" (not less than a grade point average of 3.00).

Students will be charged \$19 per credit for each credit over 19.

## TRANSCRIPTS

Transcripts of a student's academic records are issued only upon the written request of the student and should be requested two days prior to the date needed.

Three free transcripts will be issued for each student. A charge of \$1 will be made for each additional transcript.

Transcripts given directly to students do not carry the University seal and are not official. The seal is attached when the transcript is mailed directly from the University to another college or authorized persons.

## WITHDRAWAL FROM COLLEGE

If a student finds it necessary to withdraw before the end of a semester, he must complete a withdrawal form obtained from the office of the dean of student life.

If a student withdraws officially from the University before mid-semester grades have been filed, his permanent record will indicate a grade of "W" for Withdrawal for each course being pursued.

If he withdraws officially after mid-semester grades have been filed, and prior to the last three weeks of class instruction of a semester, his permanent record will indicate grades of "WP" for Withdrawn Passing or "WF" for Withdrawn Failing, based upon the mid-semester grade of each course being pursued or assigned by the individual instructors of courses being pursued at the time of withdrawal.

Withdrawal from the University during the last three weeks of classes will be permitted only under unusual circumstances. If permission is granted, grades of "WF" or "WP" will be assigned by the individual instructors of courses being pursued at the time of withdrawal.

If a student withdraws from college without permission, his permanent record will carry a notation, "Withdrew Unofficially," and grades of "F" will be assigned for each course pursued at the time of unofficial withdrawal.

## **PART VI—DEGREE PROGRAMS AND COURSES OF STUDY**

### **GENERAL COURSE INFORMATION**

#### **SUMMARY OF DEGREE PROGRAMS BY LEVEL**

**Associate Degrees**

**Bachelor's Degrees**

**Master's Degrees**

### **ORGANIZATION OF INSTRUCTIONAL DEPARTMENTS**

#### **GENERAL STUDIES PROGRAM**

#### **SCHOOLS AND DEPARTMENTS**

**School of the Arts**

**School of Arts and Sciences**

**School of Business**

**School of Community Services**

**School of Education**

**Curriculum in Engineering**

**School of Engineering Technology**

**School of Occupational Therapy**

**School of Social Work**

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## **PART VI—DEGREE PROGRAMS AND COURSES OF STUDY**

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### **GENERAL COURSE INFORMATION**

**Course Numbering.** Courses numbered in the 100 and 200 series comprise the lower division offerings and are open to freshmen and sophomores; courses numbered in the 300 and 400 series comprise the upper division offerings and are generally open to juniors and seniors. Exceptions to this general policy must be approved by faculty advisers at the time of registration.

Courses in a 500, 600, and 700 series are for college graduates who have been admitted as regular or special students to the graduate program. Courses in the 500, 600, and 700 series are described in the **Graduate Bulletin**.

Evening College offerings are the same as those listed herein. Specific courses scheduled for evening in any semester will be listed in the **Evening College Bulletin**.

Summer School offerings are the same as those listed herein. Specific courses scheduled for any summer session will be listed in the **Summer School Bulletin**.

**Course Interpretation.** Generally, odd numbers indicate first semester courses; even numbers, second semester courses.

A course listed by a single number, as Business 121, indicates that it is a one-semester course and may be offered each semester or only one semester each year.



A course listed with a double number, as History 201, 202 and designated as semester courses, consists of two semester courses, either semester of which may be taken without the other.

A course listed with a double number, as English 101-102 and designated as a continuous course, consists of two semester courses, the first of which can be taken without the second, but the second of which cannot be taken without the first.

A course listed with a double number, as Chemisry 101-102 and designated as a year course, means that no credit will be counted toward a degree for the first semester unless followed by the successful completion of the second semester of that course.

The University reserves the right to withdraw any course or program for which there is an insufficient demand.

## SUMMARY OF DEGREE PROGRAMS BY LEVEL

Degree programs in the Academic Division of the Virginia Commonwealth University are offered in the following general levels:

- Associate Degrees (generally two-year programs)
- Bachelor's Degrees (generally four-year programs)
- Master's Degrees (one and two-year programs)

### Associate Degree Programs

Two-year degree programs are offered to those students who do not expect to complete a four-year curriculum. The following degree programs lead to the associate degree:

#### Associate in Arts Degrees:

Crafts

Arts and Science

Law Enforcement

#### Associate in Science Degrees:

Mechanical Engineering Technology (Air Conditioning and Refrigeration Technology)

Electrical-Electronics Technology

Information Systems

General Secretarial

Civil and Highway Technology

Legal Secretarial

Drafting and Design Technology

Medical Secretarial

### Bachelor Degree Programs

Four-year degree programs are offered in each of the areas listed below, leading to the degree indicated:

#### Bachelor of Arts Degrees:

English

History

French

**Bachelor of Fine Arts Degrees:**

Art Education	Dramatic Art and Speech
Art History	Fashion Design
Communication Arts and Design	Interior Design
Crafts	Painting and Printmaking
Drama Education	Sculpture
<b>Bachelor of Music Degrees:</b>	
Brass, Woodwinds, or Strings	Sacred Music
Music History and Literature	Theory and Composition
Organ	Voice
Piano	

**Bachelor of Music Education Degree:** Music Education

**Bachelor of Science Degrees:**

Accounting	Law Enforcement
Advertising	Management
Biology	Mathematics
Biology Education	Mathematics Education
Business Administration	Occupational Therapy
Business Education	Physics
Chemistry	Physics Education
Chemistry Education	Psychology
Distributive Education	Recreation
Economics	Retailing
Elementary Education	Science
English Education	Science Education
French Education	Office Administration
Health and Physical Education	Sociology
History and Social Science Education	Social Welfare
Education	Special Education
Journalism	

**Master's Degrees:**

The following graduate degree programs are offered in the Academic Division of Virginia Commonwealth University. More detailed information is published in the **Graduate Bulletin**.

<b>Master of Arts:</b>	Art History
<b>Master of Fine Arts:</b>	
Dramatic Art and Speech	Visual Arts
<b>Master of Art Education:</b>	Art Education
<b>Master of Education:</b>	

Administration and Supervision  
 Counselor Education  
 Elementary Education  
 Distributive Education

Special Education  
 Emotionally Disturbed  
 Mentally Retarded

**Master of Music:**

Applied Composition and Theory

**Master of Music Education:**

Music Education

**Master of Science:**

Business  
 Occupational Therapy  
 Psychology—Applied

Psychology—Clinical  
 Rehabilitation Counseling  
 Sociology

**Master of Social Work:**

Social Work

## ORGANIZATION OF INSTRUCTIONAL DEPARTMENTS

The Academic Division of Virginia Commonwealth University is organized into the following school and departments:

### School of the Arts

Foundation Program  
 (for all first-year art students)

### DIVISION OF DESIGN

Communication Arts and Design  
 Department  
 Fashion Design Department  
 Interior Design Department

### DIVISION OF FINE ARTS

Art Education Department  
 Art History Department  
 Crafts Department  
 Painting and Printmaking Department  
 Photography Department  
 Sculpture Department

### DIVISION OF PERFORMING ARTS

Applied Music Department  
 Dramatic Arts and Speech Department  
 Music History and Theory Department

**School of Arts and Sciences:**

Biology Department  
 Chemistry Department  
 English Department  
 Foreign Languages Department  
 History, Political Science, and  
 Geography Department  
 Journalism Department  
 Mathematics Department

Philosophy and Religious Studies  
 Department  
 Physics and Physical Science  
 Department  
 Psychology Department  
 Sociology and Anthropology  
 Department

**School of Business:**

Accounting Department  
 Advertising Department  
 Business Education and Office  
 Administration Department  
 Data Processing Department  
 Economics Department  
 Information Systems Department

Business Administration and  
 Management Department  
 Marketing Department  
 Retailing Department  
 Secretarial Administration  
 Department

**School of Community Services:**

Law Enforcement Program  
 Recreation Department  
 Rehabilitation Counseling Department  
 Social Welfare Department

**School of Education:**

Counseling and Guidance Department  
 Distributive Education Department  
 Elementary Education Department  
 Health and Physical Education  
 Department  
 Library Science Program  
 Special Education Department

Secondary Education Department  
 with coordinated programs in  
 Art Education  
 Biology Education  
 Business Education  
 Chemistry Education  
 Drama Education  
 English Education  
 French Education  
 History and Social Science  
 Education  
 Language Education  
 Mathematics Education  
 Music Education  
 Physics Education  
 Science Education

**Engineering Curriculum**

The University offers the first two years of a typical engineering curriculum. Students who complete the program are assisted, as possible, in transferring to schools of engineering offering the baccalaureate degrees.

**School of Engineering Technology:**

Mechanical Engineering Technology  
 (Air Conditioning and Refrigeration) Program  
 Civil and Highway Technology Program  
 Drafting and Design Technology Program  
 Electrical-Electronics Technology Program

**School of Occupational Therapy****School of Social Work:**

A Graduate Program

**GENERAL STUDIES PROGRAM**

In recognition that some students seeking admission to Virginia Commonwealth University will not have chosen a field of concentration by the time they apply or enroll, the University has provided a general one-year exploratory program of studies. This program is flexible enough to suit the interests of any uncommitted student, yet it is basic to a number of fields of study. During the year of study, the student is encouraged to investigate various fields of study until he finds a curriculum which suits his interests and needs. The admission requirements for this program are similar to those of the school of arts and sciences.

Students enrolling in the general studies program are encouraged to select a major field of concentration by the end of one year of study. A student will not be allowed to register for more than 60 hours as an exploratory student.

**SUGGESTED COURSES FOR GENERAL STUDIES STUDENTS AMONG VARIOUS SCHOOLS****A. Most Transferable Courses**

English 101  
 History 201, 101, 103  
 Psychology 201  
 Sociology 101  
 Speech 121  
 Biology 101  
 Economics 201  
 Mathematics (choice among 103, 105, 107, or Business 101; depends on ultimate major)  
 Physical Education

**B. Second Level of Most Transferable Choices**

Political Science 201  
 Art History 103  
 Afro-American Studies 100  
 Philosophy 101 or 201

**If school is probably arts:**

English 101  
Art History 103  
Art Education 121—Principles of Art  
Speech 121  
Drama 203  
Drama 111  
Fashion Art and Design 251E  
Interior Design 221E  
Painting and Printmaking 055E  
Photography 243E  
Music 243—Music Appreciation

**If school is probably arts and sciences:**

English 101  
History 101, 103, or 201  
Mathematics 103, 107, or 200 (placement test)  
Biology 101  
Foreign Language (placement test)  
Physical Education

**If school is probably business:**

English 101  
History 201  
Business 101  
Business 121  
Speech 121  
Physical Education

**If school is probably community services:**

English 101  
History 201 or 101  
Community Services 101—Perspectives in Community Service  
Biology 101  
Sociology 101  
Law Enforcement 209 or Psychology 201 or Recreation 205  
Physical Education

**If school is probably education:**

English 101  
History 201  
Mathematics 105  
Psychology 201  
Elective in area you may wish to teach or Education 300, 301, or 302 or  
Economics 203  
Physical Education

**If school is probably engineering:**

See Engineering Section in the catalog or Mr. C. A. B. Foster, 108 Science Building

**If school is probably engineering technology:**

Basic Refrigeration ACT 103

Basic Air Conditioning—ACT 110

Engineering Drawing—DDT 109

Applied Electricity—EET 107

Blueprint Reading (machine)—DDT 101

Construction Plans and Specification—DDT 167E

Materials and Methods of Construction—DDT 117-118

English Communications (Report Writing)—ENGLISH 107

Electricity—EET 107

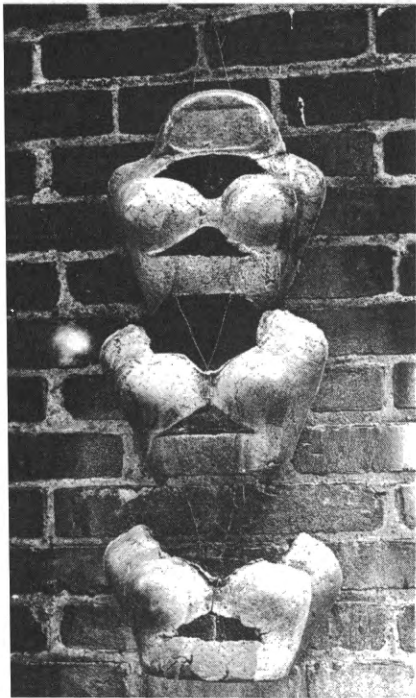
Technical Mathematics: Algebra, Geometry, and Trigonometry—109-110

Soil Mechanics—CHT 259-260

Urban Planning—DDT 256E

**If school is probably occupational therapy:**

See Mr. C. A. Kooiman, 216 Raleigh Building.





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## **THE SCHOOL OF THE ARTS**

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**HERBERT J. BURGART, Dean**

**ROBERT F. HESTER, Assistant Dean**

**ALICE B. DEAL, Librarian, School of the Arts**

The school of the arts of Virginia Commonwealth University had, as its beginning, a sculpture course offered in 1926. In 1928, a one-faculty art department was formed under the direction of Miss Theresa Pollak and since that date has grown to its present organization, achieving national recognition through its quality program in the visual and performing arts.

In 1969, the department of dramatic art and speech and the school of music, formerly independent units within Virginia Commonwealth University, were combined with the school of art to form the school of the arts. Applied music, music history and theory, and dramatic art and speech now form three of the departments within this new school.

The school of the arts is accredited by the National Association of Schools of Art and the National Association of Schools of Music.

The school of the arts offers a distinctly professional program in which students devote the greater portion of each day to professional courses in the arts. Located within an urban complex of higher education, students are provided with both the advantages of comprehensive facilities as well as professionally competent faculty. It is the only state-supported professional school of the arts in the South and one of the few in the nation offering a professional curriculum within a combined academic and professional environment.

Baccalaureate programs within the school of the arts are designed to prepare creative leaders in the visual and performing arts professions. Emphasis is placed on the development of individual competencies in the arts through the following departments which make up the school of the arts:

#### **Fine Arts Division**

Art Education  
 Art History  
 Crafts  
 Painting and Printmaking  
 Photography  
 Sculpture

#### **Division of Design**

Communication Arts and Design  
 Fashion Design  
 Interior Design

#### **Performing Arts Division**

Applied Music  
 Music History and Theory  
 Dramatic Art and Speech

Graduates of these departments have earned an impressive list of honors, prizes, scholarships, and fellowships through state, regional, and national competitions. School of the arts graduates occupy responsible positions of leadership nationally and participate at the highest level throughout the creative professions.

#### **Transfer Students**

Placement in all upper level courses is determined by departmental faculty committees, following evaluation of the student's record, performance, and/or the student's creative work. The student should contact the appropriate department chairman at the time of acceptance in order to arrange for such evaluation prior to enrollment.

#### **Special Study in Studio Art**

A limited number of exceptionally talented students may be allowed to complete three years of work or 90 semester credits entirely in art studio courses as recommended by the head of the departments of crafts, painting and printmaking, or sculpture. The University makes no award upon completion of this professional work.

#### **Special Charges (See page 27 also)**

For students enrolled in the division of design and in the fine arts division, there is a \$5 sustaining supplement charged for each studio course.

Numerous courses require an additional outlay for materials, and such fees are collected within the departments.

#### **Academic Requirements**

All majors within the school of the arts are required to earn a minimum of "C" in all major work attempted in order to remain in their departments.

Evaluation of the record of each student will be made periodically by the department and student's advisor. If, at any time during undergraduate

studies, the departmental faculty conclude that a student is not profiting by his association, he may be required to withdraw from that department.

Course offerings in any professional curriculum are open only to matriculated students in that program. Exceptions must have the approval of the department chairman.

In view of the sequence in which course work is arranged, only transfer students will be considered for admission at mid-year.

In many of the courses, a considerable amount of work is, necessarily, done outside of class. Such work is in addition to that of the scheduled classes which students are required to attend.

Students should contact the appropriate department chairman, prior to enrollment, for a more detailed curriculum outline than that which is contained in this bulletin.

All beginning students in fine arts and design divisions are enrolled in the foundation program:

### Foundation Program

BRUCE M. KOPLIN, Director

All beginning art students and transfer art students, as necessary, will take part in the foundation program. It is a common freshman year which provides the basic concepts, skills, and experiences necessary for admittance to advanced professional studio work in each department. In the program, career opportunities in the entire field of art are discussed. The student, in making initial application to VCU, will receive a packet to submit for final acceptance. It is important that the student indicate his professional interest(s). However, the student who has been accepted and placed in the foundation program will not have a departmental affiliation until after the screening of portfolios which occurs during the spring semester. At that time, all students will be given the opportunity to apply to the department of their choice, when decisions will be made on individual student performance and competency in the chosen area.

### Art Foundation Curriculum

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
Art 101-102. Basic Design . . . . .	5	5
Art 103-104. Drawing Fundamentals . . . . .	4	4
Art 105-106. Arts History Survey . . . . .	4	4
Art 107-108. Introduction to the Arts . . . . .	1	1
English 101-102. Composition and Literature . . . . .	3	3
	17	17

**Graduate Studies Program**

JOSEPH SCHWARZ, Director

The school of the arts offers graduate programs leading to the master of fine arts (M.F.A.), master of art education (M.A.E.), master of arts (M.A.), master of music (M.Mus.), and master of music education (M.Mus.Ed.) degrees with major and minor concentrations in various departments. Detailed information is available through the **Graduate Studies Bulletin**.

**DIVISION OF DESIGN****DEPARTMENTS****CREDITS REQUIRED**

Communication Arts and Design .....	129
Fashion Design .....	130
Interior Design .....	132

Majors enrolled in departments within the division of design must satisfactorily complete the credits indicated above for the bachelor of fine arts degree. Of these totals the following are required in all programs.

Foundation Program: 34 credits, Literature: 6 credits, Approved Electives: 6 credits.

The remaining credits for the degree must be in prescribed departmental and/or other professional courses, liberal arts, and other approved electives.

**COMMUNICATION ARTS AND DESIGN**

ARTHUR BIEHL

WILLIAM BEVILAQUA, Acting Co-Chairmen of the Department

Nicholas Apgar / Jonathan Bowie / John Hilton / Charles Magistro  
Michael McNeil / Philip Meggs / William Phelan / David Porter  
Charles Scalin

Part time—Bruce Smith

The department offers instruction in advertising design, television art, illustration, typography, package design, and exhibits.

The purpose of this department is to prepare the student with a sound, well-rounded background for creative and technical achievement throughout his professional life. Transfer students must submit a portfolio of work before April 1 to be considered for upper class status. Sophomores and juniors are required to submit work for faculty review in the second semester of each year.

Upon completion of the four-year program, the student will have a portfolio of professional work to show advertising agencies and communication buyers

or employers. Estimated costs for equipment, texts, services, and materials is \$1,000 per year.

### Degree Requirements in Communication Arts and Design

In addition to those credits listed above which are required in all programs in the division of design, majors in communication arts and design must complete the remaining credits listed below for the degree.

Design .....	30
Graphics .....	24-18
Drawing and Color .....	8-14
Photography .....	14
Seminar .....	1
Advanced Art History .....	3
Approved Elective .....	3
	<hr/>
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### FASHION DESIGN

OTTI Y. WINDMUELLER, Chairman of the Department

Charlesana Gossett / Vicki Hale / Sophie A. Saleh / Sidney A. Schatzky  
Charles O. Sigler

Part time—Nancy S. Herrington / Sylvan Jacobson / Denise Penderg  
Dorothy C. Posenan

The emphasis of the department of fashion design is to help prepare students to create fashions which meet professional standards in *haute couture* as well as in the garment industry. The main objective is to stimulate and to develop creative talent for the field of fashion. Graduates are prepared to assume positions as fashion designers, buyers, co-ordinators, and stylists.

The department reserves the right to retain one piece of each student's work for a permanent departmental collection.

### Degree Requirements in Fashion Design

In addition to those credits listed on page 64, which are required in all programs in the division of design, majors in fashion design must complete the remaining credits listed below for the degree.

Construction .....	4
Design .....	42
History of Costume .....	6
Illustration .....	2
Pattern Drafting and Design .....	24
Retailing .....	6
	<hr/>
	84

**INTERIOR DESIGN**

BEN D. GUNTER, Chairman of the Department

John J. Armstrong / J. Jewett Field / Dorothy T. Hamilton  
 Dorothy M. Hardy / Robert F. Hester / John L. Long / Novem Mason  
 Peter C. Yll / Ringo Yung

Part time—Rudolph O. Berger / William W. Moseley / Anne P. Ryland  
 Maurice J. Ullman

This professionally-oriented program is planned to prepare students for responsible positions as interior designers. The diverse opportunities and challenges of such positions include contract (public) as well as residential interiors. Students are trained to solve a multiplicity of interior space problems realistically and creatively, as well as to furnish and equip interiors.

Field trips are an important part of some of the departmental courses, and students are expected to participate in these trips. The expenses of these trips is in addition to the tuition and should not exceed \$100 per year.

The department reserves the right to retain one piece of each student's work for a permanent departmental collection.

**Degree Requirements in Interior Design**

In addition to those credits listed on page 64, which are required in all programs in the division of design, majors in interior design must complete the remaining credits listed below for the degree.

Architecture .....	13
Business Considerations .....	10
Design .....	42
Furniture Design .....	6
Graphics .....	6
Art History .....	6
Approved Elective .....	3
	<hr/>
	86

**FINE ARTS DIVISION**

DEPARTMENTS	CREDITS REQUIRED
Art Education .....	134
Art History	
Liberal Arts Emphasis .....	124
Studio Emphasis .....	130
Crafts .....	132
Painting and Printmaking .....	128
Photography .....	No Degree Offered
Sculpture .....	128

Majors enrolled in departments within the fine arts division must satisfactorily complete the credits indicated above for the bachelor of fine arts degree. Of these totals, the following are required in all degree programs.

Foundation Program: 34 credits, Literature: 6 credits (or approved humanities electives for art education), Advanced Art History: 3 credits, Approved Electives: 12 credits.

The remaining credits for the degree must be in prescribed departmental and/or other professional courses, liberal arts, and other approved electives.

## ART EDUCATION

ALAN LANDIS, Chairman of the Department

Edward Bleicher / Gerald Byerley / Glenn Hamm / Priscilla Hynson / Allen Lewis / Arthur Miller / Alan Schantz / Dorothy Simpson

Part time—Viola Butzner

The purpose of the department of art education is to provide both a breadth and depth of preparation in the arts as well as the necessary academic and professional courses in order to qualify students for teaching and administrative positions in the public schools. A portfolio of work is required of all transfer students.

### Degree Requirements in Art Education

In addition to those credits listed on page 66, which are required in all programs in the fine arts division, majors in art education must complete the remaining credits listed below for the degree.

Art Education Seminars .....	5
History .....	3
Mathematics .....	6
Professional Education .....	17
Science .....	8
Survey and Methods of Art Education .....	9
Three-Dimensional Studios .....	14
Two-Dimensional Studios .....	14
Approved Electives .....	3
	—
	79

## ART HISTORY

MAURICE BONDS, Chairman of the Department

Cecilia E. M. Bullard / Alice B. Deal / C. Krishna Gairola / Sharon H. Gallagher / Katherine N. Gilbert / H. Gilda Hinter-Reiter / Bruce M. Koplín  
William H. Lumpkins / John D. Lyle / Walter I. Ne. Halsingh / Regina A. Perry\* / Allan E. Ross

Part time—Carole Kass

The department of art history, as part of a professional art school, makes it possible to offer two distinct curricula: A. with a liberal arts orientation

\* On leave 1970-71.

and; B. with a studio orientation. The liberal arts curriculum (A) prepares the future art historian to continue studies at the graduate level in his field. Program B is designed for the artist-historian who is interested in preparing for both studio and art history. Students must elect one of the two programs upon completion of the sophomore year.

### Degree Requirements in Art History

In addition to those credits listed on page 66, which are required in all programs in the fine arts division, majors in art history must complete the remaining credits listed below for the degree.

LIBERAL ARTS ORIENTATION (A)		STUDIO ORIENTATION (B)	
Advanced Art History . . . . .	33	Advanced Art History . . . . .	21
French or German . . . . .	12	Drawing, Painting, and	
History . . . . .	12	Printmaking . . . . .	20
Speech . . . . .	3	Field Work . . . . .	6
Approved Electives . . . . .	9	French or German . . . . .	12
	—	History . . . . .	6
	69	Sculpture . . . . .	6
		Approved Electives . . . . .	4
			—
			75

### CRAFTS

RICHARD A. BUTZ, Chairman of the Department

Allan Eastman / Alan Lazarus / Regina Medley / Gilbert Reed  
Thomas Siefke / Nancy Thompson / Kenneth Winebrenner

Part time—Thomas Kerrigan

The department of crafts offers curricula leading to professional careers or graduate work in ceramics, metal and jewelry, weaving and textile design, and furniture design. Two programs are offered in this department: a four-year curriculum leading to the bachelor of fine arts degree and a two-year curriculum leading to the associate in arts degree.

The courses in this department are open to all students in the University. Majors must present a portfolio to the faculty for approval prior to graduation. The department reserves the right to retain one piece of a student's work per class for a departmental collection.

### Degree Requirements in Crafts

In addition to those credits listed on page 66, which are required in all programs in the fine arts division, majors in crafts must complete the remaining credits listed below for the degree.



Advanced Art History .....	3
Basic Crafts .....	18
Advanced Crafts .....	36
Crafts Senior Seminar .....	2
Approved Electives .....	18
	—
	77

## PAINTING AND PRINTMAKING

RICHARD KEVORKIAN, Chairman of the Department

James Bradford / James Bumgardner / Jewett Campbell / Richard Carlyon  
 Gerald Donato / Ramon Dougherty / Salvatore Federico / David Freed  
 Ronald Jackson / Bernard Martin / Theresa Pollak (Professor Emeritus)  
 Milo Russell / Joseph Schwarz / Jack Solomon / David Sucec  
 Philip Wetton / Morris Yarowsky

Part time—David Sauer

The department of painting and printmaking attempts to establish a foundation for the creative person who desires to attain professional status as a painter or printmaker.

As the student progresses, he is given an increasing amount of freedom; and as he demonstrates his acquisition of skill and insight, he is encouraged to explore more individually in all areas of his creative work. During the junior and senior years, most students concentrate in the area of either painting or printmaking.

### Degree Requirements in Painting and Printmaking

In addition to those credits listed on page 66, which are required in all programs in the fine arts division, majors in painting and printmaking must complete the remaining credits listed below for the degree.

Drawing .....	12
Painting and Printmaking (Basic) .....	14
Painting and Printmaking (Intermediate) .....	6
Painting and Printmaking (Advanced) .....	6
Advanced Art History .....	3
Sculpture .....	8
Approved Electives .....	24
	—
	73

## PHOTOGRAPHY

GEORGE D. NAN, Chairman of the Department

Neil D. Beitzell / Clifton Dixon / Steven J. Grabinski / Dale Quarterman

The department of photography services the needs of the school of the arts and the University at-large. It offers courses in basic and intermediate

photography and color workshops. A limited amount of super 8mm film experience is offered on the intermediate level. Students learn the basic techniques of photography and proceed to develop the visual senses on an advanced level.

The department does not offer a degree in the area of photography.

## SCULPTURE

HAROLD E. NORTH, Chairman of the Department

Myron Helfgott / Charles R. Henry / José R. Puig / Charles R. Renick  
Thomas Silver / Lester Van Winkle

The sculpture department exists for the creative person who wishes to structure his ideas by manipulating tangible materials. The goal of the sculpture department is to instill in the student a sense of pride based on competence and to help him develop methods of working and an attitude which will sustain him in his professional and personal growth as a sculptor.

### Degree Requirements in Sculpture

In addition to those requirements listed on page 66, which are required in all programs in the fine arts division, majors in sculpture must complete the remaining credits listed below for the degree.

Individual Project .....	8
Painting and Printmaking (Basic) .....	14
Painting and Printmaking (Intermediate) .....	6
Sculpture (Basic) .....	8
Sculpture (Intermediate) .....	8
Sculpture (Advanced) .....	8
Advanced Art History .....	3
Approved Electives .....	18
	<hr/>
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## PERFORMING ARTS DIVISION

### DEPARTMENTS AND AREAS OF CONCENTRATION CREDITS REQUIRED

#### Applied Music

Brass or Woodwinds .....	128
Organ .....	126
Piano .....	130
Strings .....	128
Voice .....	130

#### Music History and Theory

Music Education .....	130
Music History and Literature .....	130
Sacred Music .....	130
Theory and Composition .....	128

**Dramatic Art and Speech**

Acting .....	124
Design .....	124
Directing .....	124
Drama Education .....	127

**APPLIED MUSIC**

L. WAYNE BATTY, Chairman of the Department

Robert Behan / Cheryl Hussey / Edward A. Mirr / Carl Pfeifer  
 Richard Rivers / J. Lawrence Robinson / Edwin C. Thayer  
 Mildred L. Wuslich

Part time—Robert Barker / John R. Boykin / Judith Britton  
 Charles Drysdale / Edward Kiehl / James Moore III / Ellen McGlothlin  
 John A. O'Bannon / Caroline H. Payne / Dorothy Pfeifer / George Ross  
 David Townsend / Delbert Williams

The applied music curriculum prepares the student for advanced study leading to performance, private teaching, and college teaching. All majors in the brass or woodwinds, piano, organ, strings, and voice curricula must earn a minimum grade of "B" in their applied major.

**Degree Requirements in Applied Music**

Majors enrolled in the department of applied music must satisfactorily complete the credits indicated on page 70 for the bachelor of music degree. Of these totals, the following are required in all areas of concentration.

English: 6 credits, History: 6 credits (or Italian for voice majors),  
 Applied Music Major: 24 credits, Applied Music Minor: 4 credits,  
 Literature and Structure of Music: 36 credits, and Keyboard Harmony:  
 2 credits.

In addition to the above credits, majors in applied music must complete the remaining credits listed below for the appropriate program.

**Brass or Woodwinds**

Applied Music Minor .....	4
Ensemble .....	8
Junior and Senior Recitals...	—
Orchestra and Band .....	12
Literature .....	6
Approved Electives .....	20
	—
	50

**Organ**

Church Music .....	2
Chorus or Ensemble Elective.	8
Keyboard Skills .....	4
Organ Design and Literature.	4
Recitals .....	—
French and German .....	12
Approved Electives .....	18
	—
	48

**Piano**

Ensemble .....	4
Junior and Senior Recitals ..	—
Keyboard Skills .....	4
Large Ensemble* .....	4
Pedagogy .....	4
Piano Literature .....	4
Approved Electives .....	32
	—
	52

**Voice**

Chorus .....	6
Junior and Senior Recitals...	—
Opera Workshop .....	4
Pedagogy .....	4
Vocal Repertoire .....	2
Acting .....	6
French and German .....	12
Approved Electives .....	18
	—
	52

**Strings**

Same as for brass or woodwinds.

**MUSIC HISTORY AND THEORY**

CHARLES J. CAMPBELL, Chairman of the Department

Milton Cherry / Mary Jane Fitzpatrick / Robert Lawes / Ardyth Lohuis  
Virginia Rouse / Donald B. Tennant / Sonia Vlahcevic

Part time—Alger Batts / John Boykin / Elizabeth Grainger / Helen Spiers  
Edward Wooldridge

The programs within this department prepare students for the following:

**Music Education:** Teaching in elementary schools and/or secondary schools and advanced study toward teaching in a music education department in a college.

**Music History and Literature:** Advanced study leading to a position as either teacher of music history and literature and/or private lessons on his major instrument, or music historian, writer, or critic.

**Theory and Composition:** Advanced study leading to the profession of composing as well as teaching theory and/or composition in a college.

**Sacred Music:** Ministry of music in the church, with the capacity for handling any liturgical or non-liturgical service.

Majors in sacred music and theory and composition must earn a minimum grade of "B" in their applied music major. Junior and senior music education majors are expected to be members of the Music Educators National Conference.

**Degree Requirements in Music History and Theory**

Majors enrolled in the department of music history and theory must satisfactorily complete the credits indicated on page 70 for either the bachelor

\*Large ensemble includes chorus, orchestra and band, and women's chorus.

of music or bachelor of music education degree. Of these totals, the following are required in all areas of concentration.

English: 6 credits, Literature and Structure of Music: 36 credits, Keyboard Harmony: 2 credits.

In addition to the above credits, majors in music history and theory must complete the remaining credits for the appropriate program listed below.

**Music Education**

Applied Music Major . . . . .	14
Instrumental Skills . . . . .	7
Large Ensemble* . . . . .	4
Methods and Materials . . . . .	3
Biology . . . . .	8
History . . . . .	6
Mathematics . . . . .	6
Professional Education . . . . .	19
Approved Electives . . . . .	19
—	86

**Sacred Music**

Applied Music Major . . . . .	24
Applied Music Minor . . . . .	8
Chorus or Vocal Ensemble . .	8
Church Music . . . . .	10
Keyboard Skills . . . . .	2
Organ Design and Literature .	4
Recitals . . . . .	—
Service Playing and/or	
Conducting . . . . .	3
German or French . . . . .	12
Approved Electives . . . . .	15
—	86

**Theory and Composition**

Applied Music Major . . . . .	18
Applied Music Minor . . . . .	6
Composition . . . . .	6
Ensemble . . . . .	2
Junior and Senior Recitals . .	—
Large Ensemble* . . . . .	8
Literature . . . . .	6
Approved Electives . . . . .	38
—	84

**Music History and Literature**

Applied Music Major . . . . .	16
Applied Music Minor . . . . .	4
Large Ensemble* . . . . .	8
Music Research . . . . .	3
Recital . . . . .	—
French, German and Latin . . .	18
History . . . . .	6
Approved Electives . . . . .	31
—	86

**Information Common To Both Departments of Music**

The requirements for entrance and for graduation are in accordance with the published regulation of the National Association of Schools of Music. Students devote from 70 to 80 percent of their time each semester to music studies and about 20 to 30 percent to general education. An audition is required for admission; information regarding dates may be obtained through the appropriate music department office. All entering freshmen must take the theory placement examination at audition time or during orientation. Those who do not pass this examination must take Preparatory Theory (001) in the summer and/or pass the test on taking it a second time before entrance. Those who do not pass the examination may not enroll as full-time students.

\* Large ensemble includes chorus, orchestra and band, and women's chorus.

Candidates for all degree programs must pass a piano proficiency examination which is administered during regular examination periods. Recital attendance is required.

#### Fees\*\*

In addition to those fees which are listed elsewhere in the catalogue, students in music are charged the following:

Major in applied music, two half-hour lessons per week.....	\$220.00
Minor in applied music, one half-hour lesson per week.....	115.00
General music fee*** .....	30.00
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	\$365.00

A practice room fee of \$15.00 per semester is charged all part-time students who use University facilities.

Student teachers are available for the instruction of children at the rate of \$60.00 per academic year.

Part-time university students and below-college-level students are charged for private lessons at the rate of \$65.00 for one half-hour lesson per week for the semester and \$120.00 for two half-hour lessons per week.

## DRAMATIC ART AND SPEECH

KENNETH CAMPBELL, Chairman of the Department

Lawrence F. Bergman / J. Rodney Busch / Maurice L. Erickson  
Theodore H. Greene / Marianna Hoad / Raymond Hodges (Professor Emeritus) / C. Thomas Holloway / Michael J. Koss / Richard L. Newdick  
William L. Prosser / David Weber

Part time—Alice Flowers

The department of dramatic art and speech offers an intensive program designed to provide students with the professional and cultural foundation essential to attaining the highest standards of the theatre arts. Applicants are admitted only upon satisfactory demonstration of ability and genuine interest through audition and/or interview.

The department offers two bachelor of fine arts degrees. One is in drama, with emphasis in (1) acting, (2) directing, and (3) design. The other is in drama education and leads to teacher certification in drama and speech in the public schools of Virginia. At the end of the freshman year, the student is evaluated by the faculty of the department, and those who are retained must declare the area in which they will specialize.

\*\* The right is reserved to change fees for individual lessons and applied music.

\*\*\* For the use of practice rooms, locker, and instrument rental. In addition to this fee, a \$10.00 deposit is required for each instrument used. This will be refunded, minus any repair fees, when the instrument is returned.

A major activity of the department is the production of plays, and the student is expected to function as a member of a theatrical company, acquiring experience in all phases of theatrical activity. The demands of the program are stringent, and only those students who are willing to commit themselves to the work of the department, who are capable of observing strict professional discipline, and who are in good health, should apply.

Since much of the work of the department is done at night, it is impossible to arrange special schedules or to permit outside employment of any nature without departmental approval. Students are advised to live in residence halls or in the immediate vicinity of the campus.

**Degree Requirements for the B.F.A. Degree in Drama**

Majors must satisfactorily complete the credits indicated on page 71, and of that total, the following are required in all areas of concentration.

Introductory Drama Courses: 6 credits, Speech: 6 credits, Acting: 6 credits, English: 6 credits, Art History: 6 credits, Physical Education: 2 credits.

In addition to the above credits, candidates for the B.F.A. degree in drama must complete the remaining credits for the appropriate program listed below.

**Acting Emphasis**

Acting .....	18
Drama .....	9
Speech .....	6
Technical .....	6
Theatre History/Dramatic Literature .....	24
Literature .....	12
Physical Education .....	2
Social Science .....	6
Electives .....	9
	<hr/>
	92

**Directing Emphasis**

Acting .....	6
Directing .....	12
Drama .....	6
Technical/Design .....	21
Theatre History/Dramatic Literature .....	24
Literature .....	12
Physical Education .....	2
Social Science .....	6
Electives .....	3
	<hr/>
	92

**Design Emphasis**

Design/Technical .....	36
Theatre History/Dramatic Literature .....	24
Drama .....	9
Literature .....	12
Physical Education .....	2
Electives .....	9
	<hr/>
	92

**Degree Requirements for the B.F.A. Degree in Drama Education**

Acting .....	6
Drama .....	18
Dramatic Literature .....	9
Speech .....	12
Technical .....	4
English .....	21
Humanities .....	6
Mathematics/Science .....	14
Professional Education .....	22
Social Science .....	12
Electives .....	3
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	127

**COURSES IN THE ARTS**

Unless otherwise indicated, courses must be taken in numerical sequence

**Arts 101-102 Basic Design** Continuous course; 1 lecture hour, 1 seminar hour, and 7 studio hours. 5-5 credits. • A foundation course providing the basic skills, concepts, and language of two- and three-dimensional design as related to the visual arts. For beginning students in the school. Offered to art majors only.

**Arts 103-104 Drawing Fundamentals** Continuous course; 1 lecture hour, 1 seminar hour, and 6 studio hours. 4-4 credits. • A basic course covering free and schematic drawing skills and concepts as a necessary prerequisite to advanced studios in the visual arts. For beginning students in the school. Offered to art majors only.

**Arts 105-106 Arts History/Survey** Continuous course; 4 lecture hours. 4-4 credits. • A survey of the visual and related creative arts emphasizing the development and impact of the historical past on contemporary concepts of creative human endeavor. For beginning students in the school of arts. Offered to art majors only.

**Arts 107-108 Introduction to the Arts** Continuous course; 2 lecture hours. 1-1 credit. • An orientation course designed to provide a comprehensive understanding of the role of the visual arts as a significant contributing factor in the creation of a meaningful human environment. For beginning students in the school.

**Arts 309-310 and 409-410 Independent Study** Semester courses; 4 or 6 studio hours. 2 or 3, 2 or 3 credits. Prerequisite: Consent of department head and instructor. • This course will be limited to those few students who have demonstrated an unusual level of ability and an intense commitment to a particular area. The student must be enrolled in a regularly scheduled 300 level studio course.

**Arts 420/Arts 520 The Creative Process** Semester course; 1 lecture and 2 seminar hours. 3 credits. • An exploration of the affect and potential of the creative process in relation to contemporary cultural, educative, and social systems. Readings, group research, and discussions.



**Arts 430/Arts 530 Guided Study Abroad** 3-9 credits. Permission of instructor required. • Designed to enhance the students' knowledge by providing first hand experience with the most significant contribution of esthetic import within the geographic areas traveled.

## COURSES IN ART EDUCATION

**Art Education 121-122 Principles of Art** Continuous course; 1 lecture hour and 2 studio hours. 2-2 credits. • An introduction to two- and three-dimensional art forms with special emphasis on appreciation through participation. Not offered for credit to art majors.

**Art Education 301, 302 Art for Elementary Teachers** Semester courses; 2 lecture and 2 studio hours. 3, 3 credits. • The nature of art and its function in the lives of individuals and society is considered in addition to materials and methods for guiding the visual expression of children.

**Art Education 310 Survey of Art Education** Semester course; 2 lecture and 2 studio hours. 3 credits. • Seminar dealing with basic, theoretical, and philosophical approaches to art education with particular attention to child development and curricula design. Students will be offered opportunities to observe actual classroom procedures.

**Art Education 401-402 Methods of Art Education** Continuous course; 1 seminar hour and 4 studio hours. 3-3 credits. • The philosophy, methods, curriculum, and materials of the school art program are studied in these courses. For art education majors preparing to enter supervised teaching.

**Art Education 404 Art Education Seminar** Semester course; 1 lecture hour and 2 studio hours. 2 credits. • A seminar concurrent with student teaching which gives the students an opportunity to discuss and evaluate their progress in teaching assignments and other related activities.

**Art Education 406 Post-Student Teaching Seminar** 3 lecture hours. 3 credits. Prerequisite: Education 447, 448. • Students will evaluate their student teaching experiences with particular emphasis on changes in philosophy and their relation to curriculum development.

**Art Education 408 Two-Dimensional Art Experiences for Elementary Teachers** Semester course; 1 seminar hour and 4 studio hours. 3 credits. • The course explores the media, techniques, and concepts of drawing, painting and printmaking. Not offered for credit to art majors.

**Art Education 409 Three-Dimensional Art Experiences for Elementary Teachers** Semester course; 1 seminar hour and 4 studio hours. 3 credits. • Exploration of sculptural concepts with three-dimensional materials such as wood, metal, clay, fibre, plaster, plastic, and glass. Not offered for credit to art majors.

## COURSES IN ART HISTORY

**Art History 103, 104 Art History, General** Semester courses; 3 lecture hours. 3, 3 credits. • First semester: Pre-historic through Gothic. Second

semester: Italian Renaissance through modern. Illustrated lectures. Not offered for credit to art majors without consent of adviser.

**Art History 301 Ancient Art** Semester course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • An intensive survey of Egyptian, Mesopotamian, Greek, Etruscan, and Roman Art.

**Art History 302 Medieval Art** Semester course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • An intensive survey of Western art and architecture between 300 and 1400 A.D.

**Art History 303 Art of the Italian Renaissance** Semester course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • The painting, sculpture, and architecture of Renaissance Italy.

**Art History 304 Renaissance in Northern Europe** Semester course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • Painting, architecture, and sculpture during the North European Renaissance.

**Art History 305 American Art** Semester course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • A general survey of American architecture, painting, sculpture, and the minor arts from the colonial period to the present.

**Art History 306 Twentieth Century** Semester course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • A survey of 20th century art with emphasis on architecture, painting, and sculpture.

**Art History 307, 308 History of the Motion Picture** Semester courses; 3 lecture hours. 3, 3 credits. No prerequisite. • The history of development of the motion picture from its early beginnings to the present, with both technical and aesthetic consideration. Appropriate films are shown in addition to lectures. \$10 laboratory fee.

**Art History 401/Art History 501 Italian Painting of the Renaissance** Semester course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • Detailed consideration of the great masters of painting from the 13th through the 16th centuries.

**Art History 403/Art History 503 Origins of Modern Sculpture** Continuous course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • Early 20th century sculpture and its evolution from the art of the past.

**Art History 404/Art History 504 Contemporary Sculptors** Continuous course; 3 lecture hours. 3 credits. Prerequisite: Art History 403. • Later 20th century sculpture and the philosophy of its artists.

**Art History 406/Art History 506 Modern Painting** Semester course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • An analysis of the major movements in 20th century painting.

**Art History 407/Art History 507 The Nineteenth Century** Semester course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • Study of Western art and architecture between 1770 and 1900.

**Art History 408/Art History 508 Baroque and Rococo** Semester course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • The art and architecture of Italy and northern Europe between 1600 and 1750.

**Art History 409/Art History 509 The Near East** Semester course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • Iranian, Islamic, Indian art and architecture.

**Art History 410/ Art History 510 The Far East** Semester course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • The art and architecture of China and Japan.

**Art History 411/Art History 511 Ancient Art of the Americas** Semester course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • A study of the arts of Central and South America with special emphasis on Mexico, Peru, and the Mayan culture.

**Art History 412/Art History 512 Primitive Art** Semester course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • The study of form and symbolism in pre-literate cultures: American Indian, South Pacific, and African Negro Art.

**Art History 413/Art History 513 Islamic Art** Semester courses: 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • Consideration of architecture, sculpture, painting, and minor arts in the Moslem world.

**Art History 414/Art History 514 Gothic Art** Semester course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • Origins and development of the Gothic style with emphasis on the architecture and sculpture of France.

**Art History 416/Art History 516 The High Renaissance** Semester courses; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • Intensive consideration of the great masters of Italian art in the early 16th century.

**Art History 417/Art History 517 Classical Art** Semester courses; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105, 106. • The art and architecture of Greece and Rome.

**Art History 419, 420 Museum Methods** Semester course; 6 to 12 studio hours. 3 or 6 credits. Prerequisite: Consent of department head. • Field work in cooperation with local or regional museums. Open only to junior and senior students of high standing. Students entering a museum program must apply several weeks in advance of registration in order to complete preliminary requirements.

**Art History 421-422 Aesthetics** Continuous course: 3 lecture hours. 3, 3 credits. • Analysis and evaluation of contemporary art criticism (including the film as an art form). John Dewey, Susan Langer, and other critics are considered.

**Art History 423/Art History 523 Principles of Exhibition and Presentation** Semester course; 1 lecture hour and 2 studio hours. 2 credits. Prerequisites: Arts 101, 102, Arts 103, 104, Arts 105, 106, Arts 107, 108. • A course involving the principles of exhibition and presentation of works of art as they apply to the preparation of an exhibit or portfolio, with emphasis on creative relationships. For advanced undergraduate and graduate students.

**Art History 425-426, Art History 525-526 Seminar in Contemporary Painting** Continuous course; 3 lecture hours. 3, 3 credits. • An analysis of the ideas and images in painting from abstract expressionism to the present. Offered only to students enrolled in advanced painting courses.

**Art History 427/Art History 527 Indian Art** Semester course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105-106. • Buddhist, Jain, and Hindu of India.

**Art History 428/Art History 528 The Art of Southeast Asia** Semester course; 3 lecture hours. 3 credits. Prerequisite: Art History 103, 104 or Arts 105-106. • The art of Burma, Malaya, Thailand, Cambodia, Indo-China, and Indonesia.

**Art History 430 Architectural History: Richmond** Semester course; 3 lecture hours. 3 credits. • History and origins of Richmond area architecture. No prerequisites.

**Art History 431-432/Art History 531-532 Seminar in 20th Century Sculpture** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: Advanced standing in the department of sculpture. • The history and philosophy of sculpture and of sculptors of the period, involving research correlated with practical projects.

## COURSES IN COMMUNICATION ARTS AND DESIGN

Note: All courses below are open only to matriculated communication arts and design majors.

**Communication Art 205-206 Graphic Techniques** Continuous course; 1 lecture hour and 2 studio hours. 2-2 credits. • An orientation to studio procedures, preparation of art for reproduction, the major printing processes, and contemporary developments in graphic art methods and techniques.

**Communication Art 223-224 Drawing and Color I** Continuous course; 1 lecture hour and 6 studio hours. 4-4 credits. • The development of visual perceptiveness through the exploration of expressive graphic relationships. Space, color, and line are considered through problems of observation and invention.

**Communication Art 225-226 Advanced Design I** Continuous course; 1 lecture hour and 6 studio hours. 4-4 credits. • Deals with the basic principles of design.

**Communication Art 313-314 Typography** Continuous course; 1 lecture hour and 2 studio hours. 2-2 credits. • The visual design with type in relation to photography, printmaking, and other printing processes. Includes

identification and specifications of type, copy casting, and proofing in the print shop.

**Communication Art 331-332 Graphic Illustration** Continuous course; 1 lecture hour and 4 studio hours. 3-3 credits. • The development of creative illustration to explore various graphic media pertinent to contemporary trends in advertising and communication art.

**Communication Art 335-336 Advanced Design II** Continuous course; 1 lecture hour and 8 studio hours. 5-5 credits. Prerequisite: Communication Art 225-226. • Communication art and design problems with emphasis on a professional approach to conceptualization, visual organization, and execution.

**Communication Art 337-338 Drawing and Color II** Continuous course; 1 lecture hour and 4 studio hours. 3-3 credits. • A continuation of Communication Art 223-224 with emphasis upon the student personal approach.

**Communication Art 339-340 Lettering** Continuous course; 1 lecture hour and 2 studio hours. 2-2 credits. • Creative lettering relative to design and visual communication through study of calligraphy, scripts, and variations of traditional forms. Also experimentation and development of new letter forms.

**Communication Art 341 TV Art Production** Semester course; 3 studio hours. 1 credit. • Designed to introduce the visual designer to the techniques and methods of television production.

**Communication Art 411 Communication Arts** Semester course; 1 lecture hour. 1 credit. • Designed as a combined seminar and lecture covering the history and current developments in the communication arts and design field. Visiting lecturers from the field will participate during the semester.

**Communication Art 412 TV Art Direction** Semester course; 3 studio hours. 1 credit. • A workshop course in the direction of art for television.

**Communication Art 431-432 Graphic Illustration** Continuous course; 1 lecture hour and 4 studio hours. 3-3 credits. • Advanced course for the development of creative illustration to explore various graphic media pertinent to contemporary trends in advertising and communication art.

**Communication Art 433-434 Printing and Graphics** Continuous course; 1 lecture hour and 4 studio hours. 3-3 credits. • A workshop in printing, typography, and graphics. Finished art work is done on an individual and class basis in collaboration with the design and other junior and senior studio courses. A printed project is required as a thesis of all students receiving a degree.

**Communication Art 435-436 Advanced Design III** Continuous course; 1 lecture hour and 10 studio hours. 6-6 credits. Prerequisite: Communication Art 335-336. • Communication arts and graphic design problems assigned on an individual and class basis by instructor and visiting critic as problem requires. Designs from this class may be carried over to other senior studios for development. An individual degree project is required in either this course or Communication Art 433-434.

**Communication Art 442 TV Art Production** Semester course; 3 studio hours. 1 credit. • Advanced techniques and methods of television production.

**Communication Art 447-448 Communication Film and TV Workshop** Continuous course; 1 lecture hour and 4 studio hours. 3-3 credits. • Designed to introduce communication art students to the directing and making of non-theatrical, communication-type films and television productions. Students will work in teams assisted by faculty. This course is in conjunction with Communication Art 435-436.

## COURSES IN CRAFTS

**Crafts 201-202 Metalsmithing** Continuous course; 6 studio hours. 3-3 credits. • A course structured on specific instruction in metal forming processes applicable to the functional object; including casting, joinery, and surface enrichment. Personal investigation as well as research in contemporary and historical metal forms are encouraged. Tool kit required.

**Crafts 211-212 Jewelry** Continuous course; 6 studio hours. 3-3 credits. • An exploration of the methods, materials, and development of jewelry-making, including casting, lapidary, enamels, etc. Individual experimentation is encouraged. Tool kit required.

**Crafts 220 Woodworking for Therapists** Semester course; 6 studio hours. 3 credits. • A basic course covering hand and machine tool processes.

**Crafts 221-222 Woodworking and Furniture Design** Continuous course; 6 studio hours. 3-3 credits. • Fundamental techniques in fabrication of furniture, involving basic joinery construction, design, and mechanical drawing.

**Crafts 241-242 Beginning Ceramics** Continuous course; 6 studio hours. 3-3 credits. • Basic problems in the history, design, technology, and production of ceramic ware.

**Crafts 255 Ceramics for Therapists** Semester course; 4 studio hours. 2 credits. • Basic skills and techniques for therapists.

**Crafts 261-262 Beginning Weaving** Continuous course; 6 studio hours. 3-3 credits. • Includes basic loom mechanics and experimentation with four harness weaving techniques.

**Crafts 269, 270 Primitive Loom Techniques** Semester courses; 1 lecture hour and 2 studio hours. 2 credits per semester. • Experimentation in construction and operation of primitive looms. Offered in the evening only.

**Crafts 301, 302/Crafts 401-402 Advanced Metalsmithing** Semester courses; 6 studio hours. 3 credits per semester. • This course offers opportunity for specialization and development of techniques.

**Crafts 303, 304 Costume Jewelry** Semester courses; 1 lecture hour and 2 studio hours. 2 credits per semester. • Designed primarily for students majoring in fashion courses. Includes design, construction, and utilization of materials adaptable for use with the costume.

**Crafts 311, 312/Crafts 411, 412 Advanced Jewelry Semester courses;** 6 or 8 studio hours. 3 or 4 credits per semester. • This course offers opportunity for specialization and development of techniques.

**Crafts 321, 322 Furniture Design Semester courses;** 6 or 12 studio hours. 3 or 6 credits per semester. • Advanced design and construction, investigation of varied materials and machine processes.

**Crafts 323, 324 Production Planning Semester courses;** 6 studio hours. 3 credits per semester. • Intensive development of design and rendering techniques. Advanced experimental design problems.

**Crafts 341, 342/Crafts 441, 442 Advanced Ceramics Semester courses;** 6 or 12 studio hours. 3 or 6 credits per semester. • Advanced problems in the design and production of functional and non-functional ceramic products. Development of wheel techniques is stressed.

**Crafts 343, 344/Crafts 443, 444 Ceramics Problems Semester courses;** 6-12 studio hours. 3-6 credits per semester. • Individual problems in area of the students' specific interests and needs. With instructor's approval.

**Crafts 361, 362/Crafts 461, 462 Advanced Weaving Semester courses;** 6-12 studio hours. 3-6 credits per semester. Prerequisite: Consent of instructor. • Advanced work in creative and traditional weaving techniques.

**Crafts 363 Weaving for Therapists Semester course;** 4 studio hours. 2 credits. • For therapy majors. Includes warping, dressing the loom, and various weaving techniques on foot power, table and hand built looms.

**Crafts 365-366 Textile Design Continuous course;** 6-12 studio hours. 3-6 credits per semester. • Designing upon fabric through various printing and dyeing techniques.

**Crafts 371 Non-Loom Techniques Semester course;** 6 studio hours. 3 credits. • Instruction in the techniques of stitchery, appliqué, macramé, plaiting, and needlepoint. Discussion of the tools and materials, the heritage and modern application of each craft.

**Crafts 373 Tapestry Techniques Semester course;** 6 studio hours. 3 credits. • Instruction in designing cartoons for tapestry and construction of tapestry, combined with lectures on the Western development of tapestry and its modern use.

**Crafts 385, 386/Crafts 485, 486 Educational and Recreational Crafts Semester courses;** 6 studio hours. 3 credits per semester. • An experimental concentration in the minor crafts.

**Crafts 387, 388/Crafts 487, 488 Experimental Materials and Techniques Semester courses;** 6 studio hours. 3 credits per semester. • Experimentation and research into new materials and techniques.

**Crafts 409, 410 Metal Problems Semester courses;** 6-12 studio hours. 3-6 credits per semester. • Advanced individual exploration in art, metal, or jewelry areas.

**Crafts 421, 422 Advanced Furniture Design** Semester courses; 6 or 12 studio hours. 3 or 6 credits per semester. • Alternative methods of construction and flexible use of materials and equipment.

**Crafts 425, 426 Wood Problems** Semester courses; 6 or 12 studio hours. 3 or 6 credits per semester. • Specialization in one area of materials or a particular design problem.

**Crafts 446/Crafts 546 Kiln Design** Semester course; 6 studio hours. 3 credits per semester. • Study and experimentation in the factors involved in the design, construction, and operation of ceramic kilns.

**Crafts 447/Crafts 547 Ceramic Technology** Semester course; 6 studio hours. 3 credits per semester. • Study of ceramic materials through calculation and experimentation.

**Crafts 464/Crafts 564 Dye Techniques** Semester course; 6 studio hours. 3 credits per semester. • Experimentation with industrial and natural vegetable dye techniques.

**Crafts 467, 468 Weaving Problems** Semester courses; 6 or 12 studio hours. 3 or 6 credits per semester. Prerequisite: Consent of instructor. • Advanced individual study in weaving and related medias.

**Crafts 481-482 Senior Seminar** Continuous course; 1 seminar hour. 1 credit per semester.

**Crafts 491, 492 Fieldwork** Semester courses; 15 hours per week for 16 weeks. 6-6 credits. Prerequisite: Consent of department head. • Senior students are assigned on an individual basis. Fieldwork supervisor will arrange student's work and evaluate his performance.

## COURSES IN DRAMATIC ART

**Drama 111 Introduction to Theatre** 3 lecture hours. 3 credits. • Survey of the basic elements and theories of theatrical production; directing and design with special consideration of theatre as an artistic experience.

**Drama 112 Introduction to Drama** 3 lecture hours. 3 credits. • Analysis and critical examination of contemporary plays for methods of interpretation and production qualities.

**Drama 113-114 Acting I** Continuous course; 3 lecture hours. 3-3 credits. • Laboratory work in the preparation of scenes which demonstrate the various techniques used in acting.

**Drama 203, 204 History of the Theatre** Semester courses; 3 lecture hours. 3-3 credits. • A survey course beginning with the Greek theatre and studying the major developments of the play, the actor, and the acting area, ending with Ibsen.

**Drama 207 Stage Lighting** 1 lecture hour and 4 laboratory hours. 3 credits. • Theory and practice of present day methods of lighting the stage.



**Drama 208 Technical Production** 1 lecture hour and 4 laboratory hours. 3 credits. Prerequisite: Drama 207. • Analysis, planning, and constructing stage scenery and properties.

**Drama 209 Stagecraft Lecture** Both semesters; 1 lecture hour. 1 credit. • Lecture demonstrations concerning scenery construction, painting, and the manufacturing of properties.

**Drama 210 Costume Lecture** Both semesters; 1 lecture hour. 1 credit. • Lecture demonstrations in techniques of sewing, pattern cutting, and costume construction.

**Drama 211 Stage Crew** Both semesters; 8 laboratory hours. 2 credits. • Practical work in theatre production. Students will execute construction and rigging of scenery for departmental productions.

**Drama 212 Costume Crew** Both semesters; 8 laboratory hours. 2 credits. • Practical work in theatre production. Students will be concerned with construction of costumes for departmental productions. Stage make-up is also included.

**Drama 213-214 Advanced Acting** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: Drama 113-114. • A study of the emotional basis of acting and of the body as the expressive agent.

**Drama 221-222 Theatre Design Technique** Continuous course; 1 lecture hour and 2 laboratory hours. 3-3 credits. • Basic art course for those planning to pursue the practical study of costume and stage design. First semester includes rendering techniques and working drawings for scenic elements. Second semester emphasizes the human form and fabric renderings for costume design.

**Drama 251, 252 / Drama 351, 352 / Drama 451, 452 Rehearsal and Performance** Semester courses; arranged. 1 to 3 credits. • Work in acting and production in a major production and one-act theatre. Each student is expected to devote a minimum of 50 hours per credit per semester to receive credit.

**Drama 305-306 Scene Design** Continuous course; 1 lecture hour and 4 laboratory hours. 3-3 credits. Prerequisite: Drama 221-222. • A study of the techniques and methods of scenic design and scene painting, with practical application in major productions and one-act theater.

**Drama 309, 310 History of Costume** Semester courses; 3 lecture hours. 3, 3 credits. • Illustrated lectures on the history of costume from primitive times to the present.

**Drama 313-314 Actor's Studio** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: permission of instructor. • A laboratory for the serious students of acting in which the participants will prepare and polish various longer scenes for presentation and criticism.

**Drama 319-320 Play Production** Continuous course; 3 lecture hours. 3-3 credits. • Principles of theatre art including scenic and costume design, technical theatre and direction. This course is for drama education majors,

teachers, community theatre workers, social service, and church personnel who must produce plays.

**Drama 361-362 Directing** Continuous course; 3 lecture hours. 3-3 credits. • Lectures and discussions on the theories of stage direction; problems involved in the production of period plays and a study of modern theories; actual practice under supervision in directing one-act plays for public presentation.

**Drama 403, 404 History of Dramatic Literature** Semester courses; 3 lecture hours. 3, 3 credits. • Study and analysis of dramatic literature. First semester: Aeschylus through Shakespeare. Second semester: Corneille to Ibsen.

**Drama 405-406 Advanced Scene Design** Continuous course; 1 lecture hour and 4 laboratory hours. 3-3 credits. Prerequisite: Drama 305-306. • A more advanced study of the techniques, methods, and problems of scene design and scene painting. Designed for student who plans to attend graduate school or enter the profession.

**Drama 409-410 Costumes for the Theatre** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: Drama 221-222. • A seminar in research and design of costumes for the theatre, including discussion of fabrics and special construction methods used in stage costuming. Special project in construction will be assigned as part of the work for the course.

**Drama 413, 414 Acting Styles** Semester course; 3 lecture hours. 3, 3 credits. Prerequisite: Permission of instructor. • A study of the history and theory of acting styles from the Greeks to the present. Designed for students who wish to enter the acting profession or to attend graduate school.

**Drama 420 Senior Seminar** Both semesters; 3 lecture hours. 3 credits. Prerequisite: Permission of instructor. • Research and/or creative project in the drama major's area of special interest pursuant to graduate study or professional work in the student's chosen field.

**Drama 423, 424 Modern Drama** Semester courses; 3 lecture hours. 3, 3 credits. • First semester includes intensive study of major continental playwrights. Second semester concentrates on American dramatists with Pulitzer Prize and Drama Critics Circle selections as the core.

**Drama 425 Theatre Administration.** Semester course; 3 lecture hours. 3 credits. • The business aspects of successful theatre operation—college, commercial, community, regional—from basic purchasing methods to publicity and "house" operation for the finished product.

**Drama 461, 462 Advanced Directing** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: Drama 361-362. • Further study in direction techniques, especially the problems of the full-length play. The student will direct a cutting of a full-length play.

## COURSES IN SPEECH

**Speech 101-102 Voice and Diction** Continuous course; 3 lecture hours. 3-3 credits. • A study through phonetics of the correct speech sounds, drills in pronunciation, enunciation, and voice placement.

**Speech 104 Introduction to Rhetoric and Communication Theory** 3 lecture hours. 3 credits. • A course designed to replace the second semester of voice and diction as required subject for drama and speech education majors. It will be open only to education majors in the department of dramatic art and speech or other areas of education. The main thrust of the course will be the study of rhetoric and communication theory with performance as a secondary consideration.

**Speech 121 Effective Speech** Both semesters; 3 lecture hours. 3 credits. • Practice in organization and delivery of various types of speeches. Learning how to think clearly and to speak effectively before an audience.

**Speech 301 Beginning Oral Interpretation** 3 lecture hours. 3 credits. • The basic techniques of oral interpretation will be introduced. Performance will include the reading of prose, poetry, and dramatic literature. Written permission of the instructor must be obtained by any student outside the department who wishes to take the course.

**Speech 308 Speech for Teachers** Both semesters; 3 lecture hours. 3 credits. • The aim of this course is to make the prospective teacher aware of his own speech and the speech practices of his pupils. Proper voice placement to avoid needless fatigue, good pronunciation as well as problems of oral communication are stressed.

**Speech 401, 402 Oral Interpretation** Semester courses; 3 lecture hours. 3, 3 credits. • Principles and practice in analysis and reading of sections from prose, poetry, and drama.

**Speech 403 Persuasion** Semester course; 3 lecture hours. 3 credits. Prerequisite: Speech 104, Speech 121 or permission of instructor. • Theories of persuasion. Motivation, audience analysis, and the message and its presentation will be stressed, with performance serving as the practical application of the theories studied.

**Speech 406 Forensics' Techniques** Semester course; 3 lecture hours. 3 credits. • This course will present an overview of the forensics program in the secondary schools of Virginia, with an emphasis on debate, oral interpretation, and oratory. It will deal primarily with the coaching of the extra-curricular contest activities in the speech area.

**Speech 407 Speech and Drama Methods** Semester course; 3 lecture hours. 3 credits. • A study of the basic methods used in the teaching of drama and speech in the secondary school. Fundamental high school texts will be evaluated and students will be required to present at least five projects which will demonstrate their personal teaching techniques as well as their personal philosophy as a teacher of speech and drama.

## COURSES IN FASHION DESIGN

**Fashion Design 053 Wardrobe Clinic** Semester course; 1 lecture hour, 2 studio hours. 0 credits. • Designed to meet the needs of the fashion-conscious and economy-minded. By way of altering and restyling, existing women's wardrobes may be brought up to date. Offered in evening only.

**Fashion Design 201-202 Clothing Construction** Continuous course; 4 studio hours. 2-2 credits. • Introducing the principles involved in garment construction with emphasis on professional design-room practices as to sewing, pressing, and finishing of garments.

**Fashion Design 203-204 Apparel Design I** Continuous course; 2 studio hours. 1-1 credits. • Emphasizing fashion fundamentals as to lines, colors, texture, etc.; enhancing figure assets and nullifying faults. The cultivation of style sense and the acquisition of elegance and individuality. Also a study of outstanding designers.

**Fashion Design 205-206 Pattern Drafting** Continuous course; 1 lecture hour and 2 studio hours. 2-2 credits. • Fundamental principles of pattern-making, developing various styles from the master pattern, creating original designs to be constructed in muslin with emphasis on fitting, and introducing grading for commercial purposes.

**Fashion Design 207-208 Fashion Illustration** Continuous course; 2 studio hours. 1-1 credits. • Introducing drawing of the fashion-figure and apparel, sketching in pencil, using water color efficiently, and developing skill in quick fashion sketching.

**Fashion Design 251-252 Dressmaking** Semester course; 1 lecture hour and 2 studio hours. 2, 2 credits. • This course is designed to meet the needs of the business girl and homemaker. Students work from commercial patterns. Careful instructions are given in cutting, fitting, and constructing garments. Not open to fashion design majors. Offered in evenings only.

**Fashion Design 301-302 Draping and Design I** Continuous course; 1 lecture hour and 8 studio hours. 5-5 credits. • Introducing first the fundamentals of draping in the muslin on the dress form, then developing designs from sketches, and finally creating original designs.

**Fashion Design 303-304 Apparel Design II** Continuous course; 1 lecture hour and 2 studio hours. 2-2 credits. Prerequisite: Fashion Design 203-204. • Exposing students to many sources for design inspiration: costume research, trips to museums, nature, music, and different countries help to stimulate the student to create effective designs.

**Fashion Design 305-306 Advanced Pattern Drafting and Design** Continuous course; 1 lecture hour and 8 studio hours. 5-5 credits. Prerequisites: Fashion Design 201-202 and Fashion Design 205-206. • Developing the use of the master pattern sloper on an advanced level with the interpretation and complete execution of the student's original design, also preparing patterns for industrial purposes.

**Fashion Design 307-308 Design in Millinery I** Continuous course; 6 studio hours. 3-3 credits. • Emphasizing designing and constructing of hats in fabric and straw to meet the standards of the finest millinery establishments.

**Fashion Design 351, 352 Advanced Dressmaking** Semester courses; 1 lecture hour and 2 studio hours. 2, 2 credits. • This course is open to students who have successfully completed Fashion Design 251 and 252 or the

equivalent. Emphasis is placed on advanced techniques in women's tailoring. Not open to fashion design majors. Offered in evening only.

**Fashion Design 401-402 Design Studio** Continuous course; 2 lecture and 10 studio hours. 7-7 credits. Prerequisites: Fashion Design 301-302 and 303-304. • Assignments on an individual basis; encouraging original designing, conceiving ideas through any medium or research, preparing designer collections in portfolio form, and in research presentations. The second semester is devoted entirely to the annual fashion show preparations.

**Fashion Design 405-406 Design in Tailoring** Continuous course; 1 lecture hour and 8 studio hours. 5-5 credits. Prerequisite: Fashion Design 305-306. • Stressing pleasing coordination between the design, fabric, and model selected for the coat or suit. Emphasis is on custom-tailoring technique as required in high fashion establishments. The second semester is devoted entirely to the annual fashion show preparations.

**Fashion Design 407-408 Design in Millinery II** Continuous course; 6 studio hours. 3-3 credits. Prerequisite: Fashion Design 307-308. • Originality, attractiveness, suitability, and proficiency are stressed to meet high professional standards.

## COURSES IN INTERIOR DESIGN

**Interior Design 103, 104 Introductory Studio Course** Semester courses; 1 lecture hour and 2 laboratory hours. 2, 2 credits. • A practical course in which the student becomes familiar with fundamentals of interior design through work with floor plans, furniture selection and arrangement, floor and wall composition, color harmony, wall paper, and other aspects of design. Not open to interior design majors. Offered in evening only.

**Interior Design 201-202 Beginning Interior Design Studio** Continuous course; 2 lecture hours, 4 studio hours. 4-4 credits. • The elements of design, color theory, and major considerations in the selection and placement of furnishings are taught and developed through a series of varied problems. The student then makes use of this information in designing and furnishing complete interiors.

**Interior Design 203-204 Introduction to Architecture** Continuous course; 1 lecture hour and 2 studio hours. 2-2 credits. • Architectural theory, structural analysis, blueprint reading, and drawing.

**Interior Design 211-212 Introduction to Interior Design** Semester courses; 3 lecture hours. 3-3 credits. • An analysis of the fundamentals of interior design through the study of furniture selection and arrangement, color, composition, textiles, accessories, and other interior components.

**Interior Design 217-218 Great Houses and Monuments: Europe and America** Continuous course; 3 lecture hours. 3-3 credits. • Profusely illustrated lectures for those interested in historical architecture and furnishings. Also valuable for persons anticipating European travel. Not open to interior design majors. Offered in evening only.

**Interior Design 221-222 Interior Design Graphics** Continuous course; 1 lecture hour and 4 studio hours. 3-3 credits. • Introduction to the various presentation media and techniques to provide basic communication skills such as drafting, rendering, perspective drawing, layout organization, and model making for professional graphic presentations.

**Interior Design 301-302 Environmental Factors** Continuous course; 1 lecture hour and 2 studio hours. 2-2 credits. • Acoustical, illumination, and atmospheric control environmental support systems are discussed, and the principles applied to interior situations.

**Interior Design 311-312 Commercial Design** Continuous course; 2 lecture hours and 10 studio hours. 7-7 credits. • Practical application of design work with emphasis on manufacturers in the field of contract design. The students plan complete layouts of commercial interiors for professional presentation.

**Interior Design 321-322 History of Interior Design and Architecture** Continuous course; 3 lecture hours. 3-3 credits. • A survey of the great styles of interior design and decoration dating from Ancient Greece. Emphasis is given to the styles in Italy, France, England, and America from the Renaissance to the present.

**Interior Design 331-332 Business Procedures** Continuous course; 3 lecture hours. 3-3 credits. • Study of interior design business practices and workroom procedures.

**Interior Design 401-402 Advanced Interior Design** Continuous course; 2 lecture and 6 studio hours. 5-5 credits. • Problems exploring period and contemporary design and their relationships are planned to meet the needs of specific clients. In keeping with the endeavor to prepare the students for the professional world, the problems are as varied as possible.

**Interior Design 411-412 Trade Sources** Continuous course; 2 lecture hours. 2-2 credits. • Comparative analysis of the major sources of supply and their products. When convenient, manufacturers' representatives will meet with the class.

**Interior Design 421-422 Furniture Design and Construction** Continuous course; 1 lecture hour and 4 studio hours. 3-3 credits. • Original student furniture designs are developed through a coordinated study of structure and materials.

**Interior Design 441 Survey of Modern Architecture** Semester course; 3 lecture hours. 3 credits. • General survey of the field of architecture. An analysis of the works of architects from the nineteenth and twentieth centuries. Offered in evening only.

## COURSES IN MUSIC

**Music 101-102 / 201-202 / 301-302 / 401-402 Applied Music** 2-4, 2-4 credits. • Offered each semester for four years. Two half-hour lessons per week, twelve to eighteen hours practice per week depending on the degree; two, three or more credits each semester depending on the degree

and/or the number of lessons per week. Band instruments, keyboard instruments, orchestral instruments and voice when used as a major emphasis under any of the degrees. For those who go beyond four years and are not registered as graduate students, the numbers will have a letter suffix.

**Music 105-106 / 205-206 / 305-306 / 405-406 Applied Music 1, 1 credit.**

• Offered each semester for four years. One one-half hour lesson per week; one credit each semester. Band instruments, keyboard instruments, orchestral instruments and voice when used as a minor under any of the degrees. For those who go beyond four years and are not registered as graduate students, the numbers will have a letter suffix.

**Music 121-122 / 221-222 / 321-322 Literature and Structure of Music**

Year courses; 3 lecture hours and 6 laboratory hours. 12 credits. • A six-semester sequence during which the fundamental precepts of music history, music theory, aesthetics, basic musicianship, and other pertinent elements of the art of Western music are studied. The basis of the study is artistic work from the past and present which embodies characteristics representative of the musical development of any given historical or technical level; the procedure of the study is deductive—lectures and readings of background materials lead to analysis and performance together with discussions of specific works from which can be inferred the fundamental elements of a particular style. These are then used as guides for creative composition by each student.

**Music 151-152, 251-252, 351-352, 451-452 Chorus** Semester courses; 3 laboratory hours. 1, 1 credit.

**Music 153-154, 253-254, 353-354, 453-454 Orchestra and Band** Semester courses; 3 laboratory hours. 1, 1 credit.

**Music 155, 156, 255, 256, 355, 356, 455, 456 Ensemble** Semester courses; 2 or 3 laboratory hours. 1, 1 credit. • Vocal, string, woodwind, piano, brass, collegium, or percussion.

**Music 157, 158, 257, 258, 357, 358, 457, 458 Woman's Chorus** Semester courses; 3 laboratory hours. 1, 1 credit.

**Music 173-174 Class Piano** Semester courses; 1 laboratory hour. 1, 1 credit. • A course in basic skills for the beginner. Exercises to equalize the five fingers and develop tactile sense on the keys, reading in treble and bass clefs. May be repeated for credit with the permission of the student's adviser and the instructor of the course.

**Music 177, 178 Instrumental Techniques** Semester courses; 2 laboratory hours. 1, 1 credit. • First semester, emphasis is placed upon acquiring specific skill in playing the violin, viola, cello and/or string bass. Second semester, study of clarinet, flute, oboe, and bassoon.

**Music 180 Beginning Guitar** Semester course; 2 laboratory hours. 1 credit. • A class for adults who wish to learn the basic fundamentals essential for playing the guitar. The course will cover techniques involved in a broad

general style of performance including chording, singlestring technique, plectrum, and finger style.

**Music 203 Sight Reading** Semester course; 1 lecture hour. 1 credit. • A practical course for singers and instrumentalists designed to develop facility in sightreading.

**Music 204 Accompanying** Semester course; 1 lecture hour. 1 credit. • A practical training in the art of accompanying vocal and instrumental music for advanced piano students. Students prepare classical and modern repertoire in cooperation with voice and instrumental students.

**Music 221-222 Literature and Structure of Music** Year course; 3 lecture hours and 6 laboratory hours. 12 credits. • See Music 121-122 for description.

**Music 243, 244 Appreciation of Music** Semester courses; 3 lecture hours. 3, 3 credits. • Designed to encourage intelligent listening and understanding of finer music from all periods. Not open to music majors.

**Music 271, 272 Voice Class** Semester courses; 1 lecture hour. 1, 1 credit. • The presentation of the basic fundamentals for good voice production is singing. Students of the class will perform for each other to demonstrate the lecture.

**Music 273-274 Keyboard Harmony** Year course; 2 laboratory hours. 1 credit. Prerequisite: Music 121 and 122. • The application of basic harmony in exercises that are performed instead of written. Includes harmonization of melodies, realization of figured basses and the playing of cadence formulae.

**Music 277, 278 Instrumental Techniques** Semester courses; 2 laboratory hours. 1, 1 credit. • First semester, emphasis is placed upon acquiring specific skill in playing percussion instruments. Second semester, study of cornet, french horn, trombone, and/or bass horn.

**Music 280 Intermediate Guitar** Semester course; 2 laboratory hours. 1 credit. Prerequisite: Music 180 or equivalent. A class for adults desiring advanced study on the technique of playing the guitar.

**Music 303-304 Piano Literature** Year course; 2 semesters; 2 lecture hours. 4 credits. • A survey of stringed keyboard literature. Historical, formal and stylistic considerations of the various periods and composers of keyboard music. Listening and reading assignments included.

**Music 311-312. Counterpoint** Year course; 3 lecture hours. 6 credits. • Counterpoint in two, three, and four parts. Invention and fugue-writing.

**Music 313-314 Advanced Ear Training and Sight Singing** Year course; 2 laboratory hours. 2 credits. • Advanced Solfege: preparation and sight reading original works of the 20th century composers. Admittance by audition only.

**Music 321-322 Literature and Structure of Music** Year course; 3 lecture hours and 6 laboratory hours. 12 credits. • See Music 121-122 for description.



**Music 331, 332 Church Music I** Semester courses; 2 lecture hours. 2, 2 credits. • First semester: development of service-playing skills; transcriptions of piano scores; accompaniment of solists; conducting from the console; hymn playing. Second semester: the organization of a multi-choir program; junior choir methods and materials; handbell choirs.

**Music 333 Organ Design** Semester course; 2 lecture hours. 2 credits. • study of the design and construction of the organ.

**Music 334 Organ Literature** Semester course; 2 lecture hours. 2 credits. • A survey of organ music.

**Music 341-342 History of Music I** Continuous course; 3 lecture hours. 3-3 credits. • A study of the development of music from ancient times through the Baroque period.

**Music 367-368 Opera Workshop** Semester courses; 2 lecture hours. 2, 2 credits. • The production and performance of full operas, scenes, or acts.

**Music 373, 374 Advanced Keyboard Skills** Semester course. 1, 1 credit. • Designed to develop abilities in modulation, transposition, open-score reading, and improvisation.

**Music 377, 378 Advanced Instrumental Techniques** Semester courses; 2 laboratory hours. 1, 1 credit. • First semester, wind instruments; second semester, string instruments. The development of additional skill through ensemble performance. Emphasis upon rehearsal techniques and score reading.

**Music 381, 382 Conducting** Semester courses; 1 lecture hour and 1 laboratory hour. 2, 2 credits. • First semester: fundamental study of conducting patterns; development of skill and dexterity; second semester: emphasis is on fundamentals of voice production as related to choral singing; study of breath control, resonance, and diction.

**Music 394 Junior Recital—Arranged** No credit. • At least one half of a recital to be presented publicly and/or project and/or thesis.

**Music 411-412 Composition** Year course; 2 lecture hours. 4 credits. Prerequisite: Two years of theory, one of harmonic analysis. • Actual writing of music beginning with the phrase and advancing to two-part and three-part song forms and the sonatina.

**Music 421-422 Form and Analysis** Year course; 2 lecture hours. 4 credits. Prerequisite: At least two years of theory. • A thorough study of the formal and harmonic structures of music, from the Bach Chorale to 20th century practices.

**Music 423-424 Orchestration** Continuous course; 2 lecture hours. 2-2 credits. Prerequisite: Two Years of theory. • First semester: practice in writing for small combinations, including chorus; second semester: writing for full orchestra.

**Music 431, 432 Church Music II** Semester courses; 2 lecture hours. 2, 2 credits. • First semester: a study of hymnology and the criteria of a good

hymn, the performance of Gregorian and Anglican chant. Second semester: a survey of sacred choral literature for adult choirs—anthems, cantatas, and oratorios.

**Music 435 Liturgies** First semester; 2 lecture hours. 2 credits. • A brief history of liturgical forms with emphasis on the order of worship found in various faiths and denominations today. Also includes the planning of special services such as Christmas Eve, Thanksgiving, etc.

**Music 437-438 Applied Sacred Music** Year course; 2 credits. Prerequisite: A position in a church is required for this course. • Actual experience in playing for services and/or conducting a church choir as a steady, regular job, supervised by the instructor.

**Music 441-442 History of Music II** Year course; 3 lecture hours. 6 credits. • A study of the development of music from the 18th century to the present.

**Music 443-444 Music Research** Continuous course; 3 lecture hours. 3-3 credits. • Assigned research in aspects of the history of music that are not covered in other courses. A course for history majors only, designed to prepare the student for teaching or graduate work in musicology.

**Music 463-464 Vocal Pedagogy** Year course; 2 lecture hours. 4 credits. • A study of physiological and psychological problems found in voice-teaching.

**Music 465 Song Repertoire** Semester course; 1 lecture hour. 1 credit. • A survey of the song literature of Germany, France, England and other countries. Students will perform the material.

**Music 466 Opera and Oratorio Repertoire** Semester course; 1 lecture hour. 1 credit. • A survey of opera and oratorio literature. Students will be required to perform much of the literature.

**Music 467-468 Piano Pedagogy** Continuous course; 2 lecture hours. 2-2 credits. • Methods and materials for teaching private and class lessons. Student teacher relationships. First semester, study of elementary levels. Second semester, student teaching and study of more advanced materials and methods.

**Music 471 Methods and Materials—Elementary** Both semesters; 3 lecture hours. 3 credits. • Curriculum, materials, and procedures for music instruction in the elementary and intermediate grades; supervision as related to the specialist teacher.

**Music 472 Methods and Materials—Secondary** Both semesters; 3 lecture hours. 3 credits. • Curriculum, materials, and procedures as they apply to the development of the music program in the secondary schools. Problems of music administration-scheduling, staff, equipment, finances, and public relations.

**Music 475 Baroque Practices: Harpsichord** Semester course; 2 lecture hours. 2 credits. • Study of late Baroque performance practices, keyboard

composition, ornamentation, tempo, real rhythm. Music by J. S. Bach, C. P. E. Bach, and D. Scarlatti will be performed by the class.

**Music 476 School Music Administration and Supervision** Second semester; 2 lecture hours. 2 credits. • A study of problems related to the organization and administration of a comprehensive music program in the public schools.

**Music 479 Music Instrument Repair** Both semesters; 2 laboratory hours. 1 credit. Prerequisite: Music 177, 178, 277, 278. • A study of problems related to intonation and tone quality in band and orchestra instruments; the relationship of mouthpieces and reeds to intonation, emphasis on acquiring knowledge and skill in the care and repair of music instruments.

**Music 485 Music for Elementary Teachers** Both semesters; 3 lecture hours. 3 credits. • Development of understanding and knowledge of theory through sight singing, ear training, rhythmic, and creative experience. Basic skills in piano keyboard and in voice production will be emphasized.

**Music 486 Music Literature for Children** Second semester; 3 lecture hours. 2 credits. Prerequisite: Music 485, or equivalent. • Designed for elementary classroom teachers. Instructional materials, music literature, and teaching aids in vocal music for use with children in the elementary school.

**Music 487 Rhythms for Elementary-Age Children** Semester course; 3 lecture hours. 3 credits. • Significant contributions of rhythmic activity to the social, physical, emotional, intellectual, and musical growth of children. Fundamental rhythms, singing games, traditional folk and national dances, creative movement, and the use of practical classroom materials in music education will be presented.

**Music 488 Music Education Seminar.** Both semesters; 2 credits. • Independent investigation of problems in music education.

**Music 491 Advanced Vocal Conducting** First semester; 2 laboratory hours. 1 credit. Prerequisite: Music 381. • Study and conducting of advanced choral works, oratorios, and cantatas. Experience in conducting.

**Music 494 Senior Recital—Arranged** No credit. • A complete recital must be presented publicly and/or project and/or thesis.

## COURSES IN PAINTING AND PRINTMAKING

**Painting and Printmaking 205-206 Painting, Basic Composition** Continuous course; 8 studio hours. 4-4 credits. • First semester: An introduction to the use of paints with an emphasis on the organization of the artistic image, through the use of plastic form and color. Second semester: Intensification of painting problems coupled with analysis of historical and contemporary works.

**Painting and Printmaking 215-216 Printmaking, Basic** Continuous course; 6 studio hours. 3-3 credits. • The first semester is an introduction to the use of inks, brayers, and presses with work in relief printing, collagraph, and

woodcut. Second semester: introduction to and investigation of screen printing and work in color.

**Painting and Printmaking 221-222 Drawing, Basic** Continuous course; 6 studio hours. 3-3 credits. • Drawing instruction with attention to extension of the student's knowledge of the tools of drawing. Materials and techniques will be related to pictorial organization.

**Painting and Printmaking 305-306 Painting, Intermediate** Continuous courses; 8 studio hours. 4-4 credits. • Primary emphasis on the development of an individual direction in the context of contemporary ideas and images in painting.

**Painting and Printmaking 315-316 Printmaking, Intermediate (Planographic)** Continuous course; 6 studio hours. 3-3 credits. • Investigation of techniques and technical printing problems in planographic printing processes from stones and plates.

**Painting and Printmaking 317-318 Printmaking, Intermediate (Intaglio)** Continuous course; 6 studio hours. 3-3 credits. • Investigation of intaglio printmaking; drypoint, etching, engraving, aquatint, soft grounds, and related techniques.

**Painting and Printmaking 319-320 Printmaking, Intermediate (Serigraphy)** Continuous course; 6 studio hours. 3-3 credits. • An investigation of cut, hand-drawn, and photographic stencil techniques and printing on a variety of surfaces.

**Painting and Printmaking 321-322 Drawing, Intermediate** Continuous course; 6 studio hours. 3-3 credits. • Drawing for advanced students with special emphasis on creative response to the drawing as a work of art.

**Painting and Printmaking 405-406 Painting, Advanced** Continuous course; 8-12 studio hours. 4-6 credits. • More ambitious projects with the aim of developing in the senior student a highly professional approach and achievement in his work. Individual as well as group discussions.

**Painting and Printmaking 415-416 Printmaking, Advanced** Continuous course; 6-12 studio hours. 3-6 credits. • Specialization in one medium with emphasis upon technical research and esthetic suitability of the design to the particular medium used.

**Painting and Printmaking 417-418 Printmaking, Advanced (Etching)** Continuous course; 6-12 studio hours. 3-6 credits. • Further investigation of intaglio printmaking with specialization in one medium.

**Painting and Printmaking 419-420 Printmaking, Advanced (Serigraphy)** Continuous course; 6-12 studio hours. 3-6 credits. • Further exploration of cut, hand-drawn, and photographic stencil techniques and printing on a variety of surfaces.

**Painting and Printmaking 421-422 Drawing, Advanced** Continuous course; 6 studio hours. 3-3 credits. • A studio for drawing with individual criticism. Special attention is given to contemporary concepts.

**COURSES IN PHOTOGRAPHY**

**Photography 243-244 Photography** Continuous course; 1 lecture hour and 2 studio hours. 2-2 credits. • Study of the fundamental techniques of the camera and its expressive possibilities in relation to the field of design and visual communication.

**Photography 301-302 Basic Photo-Journalism** Continuous course; 2 lecture and 2 laboratory hours. 3-3 credits. • Study of the fundamentals of photography and techniques of camera use in relation to the fields of journalism and visual communications. (Same as Journalism 301-302.)

**Photography 321-322 Advanced Photo-Journalism** Continuous course; 2 lecture and 2 laboratory hours. 3-3 credits. Prerequisites: Photography 301-302 or evaluation of portfolio. • First semester: Advanced photographic techniques with emphasis on problems of photographing people in their environment and events as they occur. Second semester's work will emphasize student's planning and executing his own picture stories while concerning himself with continuity and emotional appeal of the photography. Student must provide film and enlarging paper. (Same as Journalism 321-322.)

**Photography 345-346 Photo and Film Communication** Continuous course; 4 studio hours. 2-2 credits. Prerequisite: Photography 243-244. • Class problems in advanced photographic and 8 mm film techniques. Individual projects are required to coordinate with other junior and senior studios.

**Photography 347, 348 Film Workshop** Semester courses; 1 lecture hour and 4 studio hours. 3, 3 credits. • Continuation of film techniques from Photography 345-346.

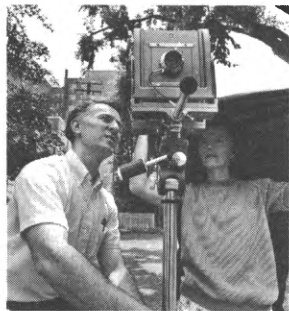
**Photography 445-446 Advanced Photography Workshop** Continuous course; 1 lecture hour and 4 studio hours. 3-3 credits. Prerequisite: Photography 345-346. • A workshop course dealing primarily with color processes.

**COURSES IN SCULPTURE**

**Sculpture 211-212 Sculpture, Basic** Continuous course; 8 studio hours. 4-4 credits. • Basic sculptural concepts are introduced with a series of projects which also acquaint the student not only with traditional materials and techniques but plastics, metals and their fabrication. Introduction is made to the utilization of shops, tools, foundry, and casting.

**Sculpture 311, 312 Sculpture, Intermediate** Semester courses; 8 studio hours. 4, 4 credits. • Work in greatest variety of traditional materials (stones, woods, and metals); also experimental media such as plastics and special techniques. Emphasis on direct work and creative independence.

**Sculpture 411, 412 Sculpture, Advanced** Semester courses; 8 or 12 studio hours. 4 or 6 credits. • Emphasis on large sculpture and advanced techniques. Development of the individual's personal style is encouraged.



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## **SCHOOL OF ARTS AND SCIENCES**

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**J. EDWIN WHITESELL, Dean**

**LEWIS C. GOLDSTEIN, Assistant Dean**

The school of arts and sciences is composed of 11 departments: biology; chemistry; English; foreign languages; history, political science and geography; journalism; mathematics; philosophy and religious studies; physics and physical science; psychology; and sociology and anthropology. Courses in philosophy and religious studies are offered as electives. Baccalaureate degrees are offered in all departments except the department of philosophy and religious studies. Information concerning curricula in all departments is given in their respective sections.

Graduate programs are offered by the department of chemistry, the department of psychology, and the department of sociology and anthropology. For details of the graduate programs in these departments, see the **Graduate Bulletin**, available upon request.

### **TWO-YEAR PROGRAM IN LIBERAL ARTS**

**JAMES D. PENDLETON, Adviser**

A two-year program in liberal arts leading to the degree of associate in arts aims to meet the needs of those students who expect to attend college two years only or who intend to transfer to one of the four-year programs offered by the school of arts and sciences or of students who wish to enroll in the school of arts and sciences but have not yet selected a major field leading

to a baccalaureate degree. Students enrolled in this curriculum may also qualify for transfer without loss of credit to certain of the degree programs offered in the school of education and the school of community services.

Students who complete the curriculum outlined below with a grade average of "C" or better may, upon application, be awarded the degree of associate in arts.

**Associate in Arts Degree Curriculum**

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology or		
Chemistry 101-102. General Chemistry . . . . .	4	4
English 101-102. Composition and Literature . . . . .	3	3
Foreign Language . . . . .	3-4	3-4
History 101-102. History of Civilization or		
History 103-104. History of Modern Europe or		
History 201-202. American History . . . . .	3	3
Mathematics 103-104. Freshman Mathematics or		
Mathematics 107. Algebra and Trigonometry and		
Mathematics 200. Calculus with Analytic Geometry or		
Philosophy or Latin . . . . .	3	3-4
	16-17	16-18
<i>Second Year</i>		
English 201, 202. Western World Literature or		
English 203, 204. English Literature . . . . .	3	3
Foreign Language or		
Approved Electives . . . . .	3	3
Six courses (18 credits) from the following or		
Other Approved Electives . . . . .	9	9
Economics		Religious Studies
History		Political Science
Mathematics		Psychology
Philosophy		Science
Art		Sociology
Music		
Physical Education (a maximum of 2 credits)		
	15-16	15-16



**GENERAL REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS**

A total of 124 credits, no more than four of which can be in physical education (activities).

The credits are to be distributed as follows:

1. English (through 201, 202 or 203, 204) . . . . .	12 credits
2. Mathematics or Philosophy or Latin . . . . .	6 credits
3. History . . . . .	12 credits
4. Laboratory Science . . . . .	8 credits
5. Foreign Language* . . . . .	12 credits
6. Humanities (Afro-American Studies, Art, Interdisciplinary courses, Literature, Music, Philosophy, Religious Studies) and/or Social Science (Economics, Political Science, Psychology, Sociology) . . . . .	12 credits
7. Major . . . . .	30 credits
8. Approved Electives (as approved by the major department) . .	23 credits
9. Free Electives (taken at VCU only) . . . . .	9 credits
<b>TOTAL</b>	<b>124 credits</b>

**GENERAL REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE**

A total of 124 credits, no more than four of which can be in physical education (activities).

The credits are to be distributed as follows:

1. English (through 201, 202 or 203, 204) . . . . .	12 credits
2. Mathematics . . . . .	6 credits
3. Humanities (Afro-American Studies, Art, Interdisciplinary Courses, Literature, Music, Philosophy, Religious Studies) . .	6 credits
4. Social Science (Economics, History, Political Science, Psychology, Sociology) . . . . .	6 credits
5. Foreign Language . . . . .	6 credits
6. Laboratory Science (full year in one science, other than the major) . . . . .	8 credits
7. Major . . . . .	36 credits
8. Approved Electives (as approved by the major department) . .	35 credits
9. Free Electives (taken at VCU only) . . . . .	9 credits
<b>TOTAL</b>	<b>124 credits</b>

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\* Students who are admitted with two or more high school units in language entrance requirements but do not qualify by placement test for admission to the second-year language course must repeat the first-year course of that same language (without credit) or must complete two years of a different language to satisfy the foreign language requirements. Students who are admitted (as exceptions) with fewer than two high school units in language entrance requirements must complete the first-year course (with credit) in addition to the 12 credits required for the B.A. degree. Students who complete the second-year level of one foreign language may elect to complete the first year of a second language to satisfy language requirements for the B.A. degree.

Specific courses from the preceding requirements for the B.A. and B.S. degrees as designated by the separate departments are shown in the following pages under the departmental curricula.

**BIOLOGY**

LEWIS C. GOLDSTEIN, Chairman of the Department

JAMES R. REED, JR., Assistant to the Chairman

Kenneth K. Asplund / Charles R. Blem / Joseph F. Chinnici  
 William V. Dashek / Jackson E. Jeffrey / Miles F. Johnson  
 T. Daniel Kimbrough, Jr. / Gerald C. Llewellyn / Margaret L. May  
 Kenneth R. Orwig / John F. Pagels / Ronald D. Parker / John D. Reynolds  
 Walter L. Richards, Jr. / Arthur J. Seidenberg / John M. Sharpley  
 George M. Simmons, Jr.

The department of biology offers a bachelor of science degree to prepare students for graduate study in biology; for teaching science in the secondary school; for employment in biological, public health, and industrial laboratories, and in related fields of business and industry; and for admission to schools of dentistry, medicine, nursing, and pharmacy. There are cooperative programs which lead to a B.S. degree in physical therapy and to an associate degree in radiologic technology.

In addition to these curricula, there are programs in pre-medicine and in pre-dentistry which are designed to prepare students to enter professional schools that accept students upon the completion of three years of successful undergraduate work. The University has an arrangement whereby it will award a B.S. degree to a student who earns a degree in either medicine or dentistry from an accredited school in lieu of completing the fourth year of work on campus.

The curriculum below satisfies the admission requirements for most schools of medicine and dentistry, serves those interested in a basic background in all areas of science, and—with the selection of appropriate elective courses—permits concentration in biology, chemistry, or physics.

**Curriculum in Science (B.S.)**

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
<i>First Year</i>	<i>Sem.</i>	<i>Sem.</i>
Biology 101-102. General Biology .....	4	4
Chemistry 101-102. General Chemistry and Qualitative Analysis .....	4	4
English 101-102. Composition and Literature .....	3	3
Foreign Language .....	3	3
Mathematics 103-104. College Algebra and Trigonometry or		
Mathematics 107, 200. Algebra and Trigonometry and Analytic Geometry and Calculus .....	3	3-4
	17 17-18	

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>Second Year</i>		
Biology 201-202. Vertebrate Morphology and Embryology..	4	4
Chemistry 301-302. Organic Chemistry .....	4	4
English 201, 202. Western World Literature		
or		
English 203, 204. English Literature .....	3	3
Psychology 201. General Psychology .....	3	—
Approved or Free Electives* .....	3	4
	<hr/>	<hr/>
	17	15
 <i>Third Year</i>		
Physics 105-106. General Physics		
or		
Physics 207-208. University Physics .....	4	4
Approved Electives. Advanced Science .....	8	4
Approved Electives. Humanities .....	3	6
	<hr/>	<hr/>
	15	14
 <i>Fourth Year</i>		
Approved Electives. Advanced Science .....	4	4
Approved or Free Electives* .....	12	9
	<hr/>	<hr/>
	16	13

The following curriculum satisfies the admission requirements for most graduate schools and permits the student to concentrate in biology.

### Curriculum in Biology (B.S.)

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology .....	4	4
Mathematics 103-104. College Algebra and Trigonometry		
or		
Mathematics 107, 200. Algebra and Trigonometry and Analytical Geometry and Calculus .....	3	3-4
English 101-102. Composition and Literature .....	3	3
Language 101-102		
or		
Language 103-104. (French, German, or Russian)** .....	3-4	3-4
	<hr/>	<hr/>
	13-14	13-15

\* No more than nine credits may be free electives.

\*\* Students may need to take advanced language courses if they plan to do graduate work.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Second Year</i>		
Biology Electives**	4	4
Chemistry 101-102. General Chemistry and Qualitative Analysis	4	4
English 201, 202. Western World Literature or English 203, 204. English Literature	3	3
Physics 105-106. General Physics	4	4
	<hr/>	<hr/>
	15	15
<i>Third Year</i>		
Biology Electives**	4	4
Chemistry 301-302. Organic Chemistry	4	4
Approved Electives. Humanities	3	3
Approved Electives. Social Science	3	3
Approved or Free Electives*	3	3
	<hr/>	<hr/>
	17	17
<i>Fourth Year</i>		
Biology Electives**	4	4
Approved or Free Electives*	12	12
	<hr/>	<hr/>
	16	16

**Areas From Which Courses Must Be Taken\*\***

**Botany**

207—Survey of the Plant Kingdom  
208—Biology of the Seed Plant  
304—Mycology  
409—Plant Anatomy  
410—Spring Flora  
411—Summer Flora  
418—Plant Ecology

**Biology**

310—Genectics  
400—Ecology  
412—Radiation Biology  
414—Aquatic Ecology  
426—Physiological Ecology

**Zoology**

201—Vertebrate Morphology  
202—Vertebrate Embryology  
204—Invertebrate Zoology  
308—Vertebrate Histology  
309—Entomology  
313—Vertebrate Natural History I  
314—Vertebrate Natural History II  
403—Biology of the Fishes  
413—Parasitology  
416—Ornithology  
417—Mammalogy

**Cellular Biology**

303—Bacteriology  
311—General Physiology  
401—Industrial Microbiology  
405—Bacterial Physiology  
420—Plant Physiology

\* No more than nine credits may be free electives.

\*\* Biology electives should be chosen so that there will be a minimum of one course from each of the four areas indicated. Biology 407-408, Special Problems, may be elected as a second course in any of the four areas.

Biology courses not listed above cannot be applied to satisfy the major requirements.

### Curriculum in Biology Education (B.S.)

The following curriculum satisfies the certification requirements for secondary teachers in the subject matter listed as well as the requirements for teaching general science.

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
<i>First Year</i>	<i>Sem.</i>	<i>Sem.</i>
Biology 101-102. General Biology .....	4	4
Chemistry 101-102. General Chemistry and Qualitative Analysis .....	4	4
English 101-102. Composition and Literature .....	3	3
Mathematics 103-104. Freshman Mathematics or Mathematics 107, 200. Algebra and Trigonometry and Analytic Geometry and Calculus .....	3	3-4
Physical Education .....	1	1
	<hr/>	<hr/>
	15	15-16
 <i>Second Year</i>		
Biology 201. Vertebrate Morphology .....	4	—
Biology 202. Vertebrate Embryology or Biology 204. Invertebrate Zoology .....	—	4
English 201, 202. Western World Literature or English 203, 204. English Literature .....	3	3
History 201, 202. American History .....	3	3
Physics 105-106.* General Physics .....	4	4
Psychology 201. General Psychology .....	—	3
Sociology 101. General Sociology .....	3	—
	<hr/>	<hr/>
	17	17
 <i>Third Year</i>		
Biology Electives .....	4	4
Chemistry 301-302.* Organic Chemistry .....	4	4
Education 301. Human Development and Learning .....	3	—
Physical Education .....	1	—
Approved Electives. Humanities .....	3	3
Approved Elective. Social Science .....	—	3
Approved Elective .....	—	3
	<hr/>	<hr/>
	15	17

\* Approved science elective may be substituted.

		<i>Block</i>	
		<i>A</i>	<i>B</i>
<i>Fourth Year</i>			
Education 300.	Foundations of Education . . . . .	3	— —
Education 439.	Methods and Curriculum in High School. —		3 —
Education 440.	Methods in Teaching High School Science . . . . .	—	3 —
Education 486.	Supervised Teaching—Secondary . . . . .	—	— 6
Health Education 385.	School and Community Hygiene. 3	—	— —
Psychology 305.	Educational Psychology . . . . .	—	3 —
Approved Electives.	Advanced Courses in Biology . . . . .	8	— —
		14	15

### Curriculum in Pre-Dental Hygiene

The curriculum in pre-dental hygiene meets the minimum academic requirements for application to transfer to the bachelor of science degree in the dental hygiene program in the school of dentistry at the Medical College of Virginia.

		<i>Credits</i>	
		<i>1st</i>	<i>2nd</i>
		<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>			
Biology 101-102.	General Biology . . . . .	4	4
English 101-102.	Composition and Literature . . . . .	3	3
Mathematics 103.	Freshman Mathematics . . . . .	3	—
Sociology 101.	General Sociology . . . . .	—	3
Approved Electives	. . . . .	5	5
		15	15

### *Second Year*

Chemistry 101-102.	General Chemistry and Qualitative Analysis . . . . .	4	4
English 201, 202.	Western World Literature or		
English 203, 204.	English Literature . . . . .	3	3
Psychology 201-202.	General Psychology . . . . .	3	3
Speech 121.	Effective Speech . . . . .	3	—
Approved Electives	. . . . .	2	5
		15	15

### Curriculum in Pre-Nursing

The curriculum in pre-nursing satisfies the academic requirements for admission to the school of nursing at the Medical College of Virginia. After two years at the Academic Division, students may apply for transfer to the MCV school of nursing where they will complete the program. If the students wish to transfer to a nursing school at another institution, they should refer to its catalogue for its admission requirements.

		<i>Credits</i>	
		<i>1st</i>	<i>2nd</i>
		<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>			
Biology 101-102.	General Biology . . . . .	4	4
English 101-102.	Composition and Literature . . . . .	3	3
History 101, 102.	History of Civilization		
	or		
History 103, 104.	History of Modern Europe		
	or		
History 201, 202.	American History . . . . .	3	3
Mathematics 103.	Freshman Mathematics . . . . .	3	—
Sociology 101.	General Sociology . . . . .	—	3
Approved Electives	. . . . .	3	3
		<hr/>	
		16	16
 <i>Second Year</i>			
Chemistry 103-104.	Introduction to Modern Chemistry. . . . .	4	4
English 201, 202.	Western World Literature		
	or		
English 203, 204.	English Literature . . . . .	3	3
Psychology 201-202.	General Psychology . . . . .	3	3
Approved Electives.	Humanities . . . . .	3	3
Approved Elective.	Sociology . . . . .	3	—
Approved Elective	. . . . .	—	3
		<hr/>	
		16	16

### Curriculum in Pre-Physical Therapy

The curriculum in pre-physical therapy is offered in cooperation with schools of physical therapy which are approved by the Council on Medical Education of the American Medical Association in cooperation with the American Physical Therapy Association.

Satisfactory completion of the two-year curriculum will allow for application to schools of physical therapy offering two years of professional education. The physical therapy school grants the bachelor of science degree. Although different schools may vary in their requirements, the school of physical therapy of the Medical College of Virginia (the Health Sciences

Division of Virginia Commonwealth University) requires the following pre-requisites for admission:

	Semester Hours
English .....	6
Biology (Laboratory Course) .....	6
General Chemistry (Laboratory Course) .....	8
General Physics (Laboratory Course) .....	8
Social Science* .....	9
General Psychology .....	3
College Algebra and Plane Trigonometry or Equivalent	3-6
Approved Electives .....	18-21
	64

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology .....	4	4
English 101-102. Composition and Literature .....	3	3
Chemistry 103-104. Introduction to Modern Chemistry....	4	4
Mathematics 103-104. Freshman Mathematics .....	3	3
Approved Electives .....	3	3
	17	17

<i>Second Year</i>		
Physics 105-106. General Physics .....	4	4
Psychology 201. General Psychology .....	3	—
Social Science .....	3	6
Approved Electives .....	6-7	6-7
	16-17	16-17

\* May be selected from the following:

- |                       |                          |
|-----------------------|--------------------------|
| Adolescent Psychology | Personality Development  |
| Anthropology          | Philosophy               |
| Child Psychology      | Psychology of Adjustment |
| Economics             | Sociology                |
| History               | Statistics               |

Recommended electives are:

- Foreign Language (Latin, French, or German)
- Mathematics (Analytical Geometry, Calculus)
- Social and biological sciences, physical education courses such as gymnastics, tumbling, and modern dance



### Curriculum in Pre-Radiologic Technology

Virginia Commonwealth University offers an associate in science degree in radiologic technology. The pre-radiologic technology program is designed to satisfy the requirements for entrance to the school of radiologic technology at the Medical College of Virginia. After one year at the Academic Division, the student applies for transfer to the school of radiologic technology, where he will complete the remaining two years.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year (Academic Division)</i>		
Biology 103-104. Anatomy and Physiology . . . . .	3	3
English 101-102. Composition and Literature . . . . .	3	3
Mathematics 103. Freshman Mathematics . . . . .	3	—
Physics R103. Introductory Physics for Radiology . . . . .	—	3
Psychology 201. General Psychology . . . . .	3	—
Electives . . . . .	3	6
	15	15
 <i>Summer Session (Medical College of Virginia)</i>		
Radiography R101-102. . . . .	5	
Patient Care R105. . . . .	1	
Practicum . . . . .	—	
	6	
 <i>Second Year (Medical College of Virginia)</i>		
R200. Radiographic Physics . . . . .	3	—
R203-204. Radiographic Positioning . . . . .	3	3
R205. Patient Care . . . . .	1	—
R206-207. Applied Radiography . . . . .	4	4
R208. Topographical Anatomy . . . . .	1	—
R209. Film Critique . . . . .	—	2
R210. Radiation Safety . . . . .	—	2
R211. Radiation Therapy and Isotopes . . . . .	2	—
R212. Departmental Administration . . . . .	—	1
Practicum . . . . .	—	—
	14	12
 <i>Third Year</i>		
Clinical Practice . . . . .	—	—
TOTAL . . . . .	62 Credits	

**CHEMISTRY**

**MARY E. KAPP, Chairman of the Department**

Dale E. Arrington / Robert G. Bass / George C. Grant / John F. Lefelhocz  
Raphael M. Ottenbrite / Donald Shillady / B. L. Stump / Leonard Vance

The department offers a bachelor of science degree to prepare students for graduate study in chemistry; for teaching science in the secondary schools; for employment in chemical and industrial laboratories, and in related fields of business and industry; and for admission to schools of medicine, dentistry, and veterinary medicine

The curriculum in science (see page 102) gives a basic background in the sciences and satisfies admission requirements to most schools of medicine, dentistry, and veterinary medicine. This program is flexible enough to permit concentration in chemistry.

The bachelor of arts degree in chemistry satisfies requirements for entrance to medical schools and for students desiring a chemistry major with more opportunity for electives.

For information about the Ph.D. program in chemistry, offered in conjunction with the Medical College of Virginia, see the **Graduate Bulletin**, available upon request.

**Curriculum in Chemistry (B.S.)**

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
Chemistry 101-102. General Chemistry and Qualitative Analysis . . . . .	4	4
English 101-102. Composition and Literature . . . . .	3	3
German 101-102/103-104* . . . . .	3-4	3-4
Mathematics 107. Algebra and Trigonometry or Equivalent	3	—
Mathematics 200. Calculus with Analytic Geometry . . . . .	—	4
Approved Electives. Social Science . . . . .	3	3
	16-17	17-18
<i>Second Year</i>		
Chemistry 202. Quantitative Analysis . . . . .	—	4
Chemistry 301-302. Organic Chemistry . . . . .	4	4
Mathematics 201-202. Calculus with Analytic Geometry . . . . .	4	3
Physics 207-208. University Physics . . . . .	4	4
Approved Elective . . . . .	3	—
	15	15

\* Students may need to take advanced language courses if they plan to do graduate work.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Third Year</i>		
Chemistry 303. Physical Chemistry .....	3	—
Chemistry 304. Physical Chemistry .....	—	3
Chemistry L304. Physical Chemistry Laboratory .....	—	2
English 201, 202. Western World Literature or		
English 203, 204. English Literature .....	3	3
Mathematics 301. Differential Equations .....	3	—
Approved or Free Electives**† .....	6-7	9
	15-16	17

*Fourth Year*

Chemistry 406. Advanced Inorganic Chemistry .....	—	3
Chemistry 409. Advanced Analytical Chemistry .....	4	—
Approved or Free Electives**† .....	9-10	12
	13-14	15

**Curriculum in Chemistry (B.A.)**

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
Chemistry 101-102. General Chemistry and Qualitative Analysis .....	4	4
English 101-102. Composition and Literature .....	3	3
Foreign Language* .....	3-4	3-4
Mathematics 107. Algebra and Trigonometry .....	3	—
Mathematics 200. Calculus with Analytic Geometry .....	—	4
	13-14	14-15

\*\* No more than nine credits may be free electives.

† Either Chemistry 403 or Chemistry 401 with Chemistry L401 must be taken to satisfy B.S. degree requirements.

\* See foreign language requirement for B.A. degree.

\*\* Students may need to take advanced language courses if they plan to do graduate work.

† Either Chemistry 403 or Chemistry 401 with Chemistry L401 must be taken to satisfy B.S. degree requirements.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Second Year</i>		
Chemistry 202. Quantitative Analysis .....	—	4
Mathematics 201-202. Calculus with Analytic Geometry ..	4	3
Physics 207-208. University Physics .....	4	4
Foreign Language* .....	3	3
Approved Electives** .....	6	3
	17	17
<i>Third Year</i>		
Chemistry 301-302. Organic Chemistry .....	4	4
English 201, 202. Western World Literature or		
English 203, 204. English Literature .....	3	3
Approved Elective** .....	9	9
	16	16
<i>Fourth Year</i>		
Chemistry 303-304. Physical Chemistry .....	3	3
Chemistry L304. Physical Chemistry Laboratory .....	—	2
Approved Elective Chemistry .....	—	3
Approved or Free Electives*** .....	3	4
	15	14-15

### Curriculum in Chemistry Education

The following curriculum satisfies the certification requirements for secondary teachers in the subject matter listed as well as the requirements for teaching general science.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology .....	4	4
Chemistry 101-102. General Chemistry and Qualitative Analysis .....	4	4
English 101-102. Composition and Literature .....	3	3
Mathematics 107. Algebra and Trigonometry .....	3	—
Mathematics 200. Calculus with Analytic Geometry .....	—	4
Psychology 201. General Psychology .....	—	3
Physical Education .....	1	—
	15	18

\* See foreign language requirement for B.A. degree.

\*\* See general requirements for B.A. degree regarding history and social sciences and/or humanities.

\*\*\* No more than nine credits may be free electives.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Second Year</i>		
Chemistry 301-302. Organic Chemistry .....	4	4
English 201-202. Western World Literature or		
English 203-204. English Literature .....	3	3
History 201 or 202. American History .....	—	3
Mathematics 201-202. Calculus .....	4	3
Physics 207-208. University Physics .....	4	4
	15	17

*Third Year*

Chemistry 202. Quantitative Analysis .....	4	—
Chemistry 303. Physical Chemistry .....	3	—
Chemistry 304. Physical Chemistry .....	—	3
Chemistry L304. Physical Chemistry Laboratory .....	—	2
Education 300. Foundations of Education .....	3	—
Health Education 305. School and Community Hygiene...	—	3
Approved Electives—Music, Foreign Language, or Art.....	3	3
Approved Electives—Social Science, Economics, History, Political Science, or Philosophy .....	3	3
	16	14

		<i>Block</i>	
		<i>A</i>	<i>B</i>
<i>Fourth Year</i>			
Education 301. Human Development and Learning.....	3	—	—
Education 439. Curriculum in the High School.....	—	3	—
Education 440. Methods in Teaching High School Science	—	3	—
Education 486. Supervised Teaching—Secondary .....	—	—	6
Psychology 305. Educational Psychology .....	—	3	—
Approved Electives—Biology, Chemistry, Physics, or Mathematics .....	6-7	—	—
Approved Electives—Humanities .....	6	—	—
	15-16	9	6

**Curriculum in Pre-Medical Technology**

Virginia Commonwealth University offers a bachelor of science degree in medical technology. The pre-medical technology program is designed to satisfy the requirements for entrance into the school of medical technology in the Medical College of Virginia.

The curriculum in general will satisfy the requirements for admission to most schools of medical technology, but students considering applying to

another school should acquaint themselves with the specific requirements of the school to which they wish to apply. Any student who wishes to transfer to a school other than MCV must transfer to a school that will confer a degree at the completion of the fourth year.

After satisfactory completion of 94 semester hours (3 years) of the curriculum, students are eligible to apply for transfer to the school of medical technology. Classes in the school of medical technology start each year in June and continue to the following June. The deadline for applications for each June starting class is the preceding January 1. It is recommended that students pursuing the curriculum apply to the school of medical technology at the end of their second year. Admission to the school of medical technology will be based on the scholastic record, demonstrated aptitude, and a personal interview by the school's admissions committee. On completion of the fourth year, students are eligible for the national examination for certification by the Registry of Medical Technologists of the American Society of Clinical Pathologists.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology .....	4	4
Chemistry 101-102. General Chemistry and Qualitative Analysis .....	4	4
English 101-102. Composition and Literature .....	3	3
Mathematics 103-104. Freshman Mathematics or		
Mathematics 107-200. College Algebra and Trigonometry and Calculus with Analytic Geometry .....	3	3-4
	14	14-15

Additional courses must be chosen as follows:

Biology 205, 4 credits; Biology 206, 4 credits; Biology 303, 4 credits.

Chemistry 301-302, 8 credits; Chemistry 202, 4 credits.

English 201, 202 or 203, 204, 6 credits.

Electives to complete 94 credits. (Courses in the non-sciences are strongly recommended.)

### **Curriculum in Pre-Pharmacy**

The curriculum in pre-pharmacy is designed to satisfy the requirements for entrance to the school of pharmacy at the Medical College of Virginia. Although satisfactory completion of the program will allow for application to the school of pharmacy, it does not insure acceptance.

The curriculum in general will satisfy the requirements for admission to most schools of pharmacy, but a student should acquaint himself with the specific requirements of the school to which he wishes to apply.

The program as outlined below includes 39 hours in required subject areas and 24 hours of electives, of which a minimum of 18 hours must be selected from areas in the humanities.

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology .....	4	4
English 101-102. Composition and Literature .....	3	3
Mathematics 103-104. Freshman Mathematics .....	3	3
Approved Electives. Humanities .....	6	6
	<hr/>	<hr/>
	16	16
 <i>Second Year</i>		
Chemistry 101-102. General Chemistry and Qualitative Analysis .....	4	4
Economics 201-202. Principles of Economics .....	3	3
Physics 105-106. General Physics .....	4	4
Approved Electives. Humanities .....	3	3
Approved Elective .....	3	—
	<hr/>	<hr/>
	17	14

**ENGLISH**

ALBERT M. LYLES, Chairman of the Department

C. W. GRIFFIN, Assistant to the Chairman

- Mary L. Albrecht / Robert A. Armour / Sudie Y. Beck / Jeanne F. Bedell  
 Helen Berkowitz / Susan P. Blanton / E. Allan Brown / John A. Carstens  
 Frank W. Childrey, Jr. / Joyce Z. Connors / Walter R. Coppedge  
 Mary E. Culp / Gertrude C. Curtler / Elizabeth F. Duke / J. Maurice Duke  
 Louisa P. Fawley / Ann T. Foster / Atalissa S. Gilfoyle / William F. Goggin\*  
 Robert Grattan III / Elsie A. Griffin / Nathaniel H. Henry / M. Thomas Inge  
 David E. Ingold / Anne S. Jordan / Betty Lloyd / Earl N. Lockard  
 George C. Longest / Jeanne S. Lynch / Robert C. Markham  
 Patricia E. Mitchell / Douglas K. Morris / Jerry D. Morton  
 Sandra Panici / James D. Pendleton / Edward C. Peple, Jr.  
 Phil R. Phelps / Elizabeth R. Reynolds / Raymond P. Rhinehart  
 Mary L. Skinner / Mohammad Tajuddin / Margaret G. Tinsley  
 J. Edwin Whitesell / R. Shade Wilson / Richard K. Zacharias

The department of English offers two degree programs, one leading to the bachelor of arts degree in the school of arts and sciences and the other leading to the bachelor of science in secondary education conferred through

\* On leave 1970-71.

the school of education. In addition, the department offers required and elective courses in English composition, language, and literature for students in other programs of study as well as those majoring in English.

The bachelor of arts curriculum in English requires a minimum of 124 credits, including 30 credits in advanced courses (300-400 level) offered by the English department. In addition to the general degree requirements of the school of arts and sciences stated on page 101 of this bulletin, students majoring in English will take English 401 (Shakespeare); English 402 (Chaucer) or English 403 (Milton); English 303 (Modern Grammar) or English 451 (History of the Language); and will elect the remainder of their departmental courses from upper-division offerings in English.

Candidates for the bachelor of science degree must complete a minimum of 124 credits in a curriculum meeting the general and professional education certification requirements prescribed by the Virginia State Board of Education and stated on pages 227-228 of this bulletin. At least 36 credits in English courses are required for the degree. Students are advised to elect sufficient courses in at least one other subject to qualify them for endorsement in that area.

**Curriculum in English (B.A.)**

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology		
or		
Chemistry 103-104. Introduction to Modern Chemistry		
or		
Physics 203-204. General Physics . . . . .	4	4
English 101-102. Composition and Literature . . . . .	3	3
History 101, 102.* History of Civilization		
or		
History 103, 104.* History of Modern Europe		
or		
Approved Electives . . . . .	3	3
Foreign Language** . . . . .	3-4	3-4
Mathematics 103-104. Freshman Mathematics		
or		
Philosophy		
or		
Latin . . . . .	3	3
Approved or Free Elective*** . . . . .	1	1
	17-18	17-18

\* At least 12 credits in history are required for the B.A. degree.  
 \*\* See foreign language requirement for B.A. degree on page 101.  
 \*\*\* No more than nine credits may be free electives.



		<i>Credits</i>	
		<i>1st</i>	<i>2nd</i>
		<i>Sem.</i>	<i>Sem.</i>
<i>Second Year</i>			
English 201, 202.	Western World Literature		
or			
English 203, 204.	English Literature		
or			
English 205, 206.	American Literature . . . . .	3	3
History 201, 202.*	American History		
or			
Approved Electives	. . . . .	3	3
Foreign Language**	. . . . .	3	3
Approved Electives			
Humanities (which may include Art History, Drama			
History, Music Appreciation, and Speech)			
and/or			
Social Science (which may include Economics) . . . . .		6	6
		<hr/>	<hr/>
		15	15
 <i>Third Year</i>			
English Electives (300-400 level courses) . . . . .		6	6
Approved or Free Electives*** . . . . .		9	9
		<hr/>	<hr/>
		15	15
 <i>Fourth Year</i>			
English 401.	Shakespeare . . . . .	3	—
English 402.	Chaucer		
or			
English 403.	Milton . . . . .	—	3
English 451.	History of the Language		
or			
English 303.	Modern Grammar . . . . .	3	—
English Electives (300-400 level courses) . . . . .		3	6
Approved or Free Electives*** . . . . .		6	6
		<hr/>	<hr/>
		15	15

\* At least 12 credits in history are required for the B.A. degree.

\*\* See foreign language requirement for B.A. degree on page 101.

\*\*\* No more than nine credits may be free electives.

**Curriculum in English Education (B.S.)**

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology		
or		
Chemistry 103-104. Introduction to Modern Chemistry		
or		
Physics 105-106. General Physics . . . . .	4	4
English 101-102. Composition and Literature . . . . .	3	3
Foreign Language 201-202 . . . . .	3	3
History 101, 102. History of Civilization		
or		
History 103, 104. History of Modern Europe . . . . .	3	3
Mathematics 103-104. Freshman Mathematics . . . . .	3	3
Physical Education . . . . .	1	1
	17	17
<i>Second Year</i>		
Economics 203. Introduction to Economics . . . . .	—	3
English 203, 204. English Literature		
or		
English 205, 206. American Literature . . . . .	3	3
Foreign Language		
or		
Approved Elective* . . . . .	3	3
History 201, 202. American History . . . . .	3	3
Psychology 201. General Psychology . . . . .	3	—
Social Science Electives . . . . .	3	3
	15	15
<i>Third Year</i>		
Education 300. Foundations of Education . . . . .	3	—
Education 301. Human Development and Learning . . . . .	—	3
English 303. Modern Grammar . . . . .	3	—
English 304. Advanced Composition . . . . .	—	3
English Electives* . . . . .	6	6
Health Education 385. School Health . . . . .	3	—
Speech 308. Speech for Teachers . . . . .	—	3
	15	15

\* Students who present two high school units in a foreign language are required to complete the intermediate course only, but are encouraged to elect a second year. Those who present fewer than two high school units in a foreign language are required to complete both the beginning course and the intermediate course.

\* At least three credits in American literature are required for the B.S. degree.

	<i>Credits</i>		
	<i>1st Sem.</i>	<i>2nd Sem.</i>	
<i>Fourth Year</i>			<i>Block</i>
			<i>A B</i>
Education 439. Secondary School Curriculum . . . . .	—	3	—
Education 441. Teaching High School English. . . . .	—	3	—
Education 486. Supervised Teaching—			
Secondary (English) . . . . .	—	—	6
English 401. Shakespeare . . . . .	3	—	—
English Elective . . . . .	3	—	—
Psychology 305. Educational Psychology . . . . .	—	3	—
Approved Electives . . . . .	9	—	—
	15	9	6

## FOREIGN LANGUAGES

WILLIAM J. BECK, Chairman of the Department

John C. Birmingham, Jr. / Edward R. Haymes / Betty Lloyd

Elizabeth M. Miegler / Cécile E. Noble / Estela A. Pandiello

Jean-Louis Picherit / Anna E. Platz / Juliet L. Woodson / Yun-Yuan Yang

The department of foreign languages offers a bachelor of arts degree in French and a bachelor of science degree in French education to prepare the student for graduate study in the language, for the teaching of French on the secondary level, or for service in fields requiring the knowledge of French. Students admitted to the program must have fulfilled the requirements for admission to the University. They should have completed two years of French or should be prepared to make up the deficiency. Students entering with more than one high school unit in any language will not receive credit for the 101-102 courses in that language. Students offering more than two high school units in any language will not receive credit for the 201-202 courses in that language course.

The curriculum in French leading to the bachelor of arts degree requires a minimum of 124 credits, including 30 hours beyond the 200 level. Students majoring in French are required to take the following courses: French 301, 302 (Survey of Literature), French 303-304 (Advanced Grammar and Translation), French 305 (French Civilization), and 15 hours taken from any of the 400-level courses, as well as two years of a second foreign language. At least 21 general elective credits must be chosen from related courses approved by the student's adviser.

Candidates for the bachelor of science degree in French education must complete a minimum of 124 credits in a curriculum meeting the general and professional education certification requirements prescribed by the Virginia State Board of Education and stated on pages 227-228 of this bulletin. At least 30 credits in French courses, including 12 hours at the

400 level, are required for the degree. Students are advised to elect sufficient courses in at least one other foreign language to qualify them for endorsement in that area.

Substantial course offerings in French, German, and Spanish are listed and described in this bulletin. Some of these courses are also offered in the Evening College. In addition to these, the ones listed below are offered in the Evening College alone. (See the Evening College Bulletin for complete information.)

Chinese	Italian
Hebrew	Japanese
Hindi	Russian

### Curriculum in French (B.A.)

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology		
or		
Chemistry 103-104. Introduction to Modern Chemistry		
or		
Physics 105-106. General Physics . . . . .	4	4
English 101-102. Composition and Literature . . . . .	3	3
French 201-202. Intermediate French		
or		
Approved higher level course . . . . .	3	3
History 101, 102. History of Civilization . . . . .	3	3
Mathematics 103-104. Freshman Mathematics		
or		
Latin		
or		
Philosophy . . . . .	3	3
Approved or Free Electives* . . . . .	1	1
	17	17
<i>Second Year</i>		
English 201, 202. Western World Literature		
or		
English 203, 204. English Literature . . . . .	3	3
French 303-304. Advanced Grammar and Translation . . . . .	3	3
Second Foreign Language 101-102 . . . . .	3-4	3-4
Approved Electives. Humanities		
and/or		
Social Science . . . . .	6	6
	15-16	15-16

\* No more than nine credits may be free electives.

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>Third Year</i>		
French 301, 302. Survey of Literature .....	3	3
French 305. (or 400-level courses) .....	3	3
Second Foreign Language 201-202 .....	3	3
Approved Electives. English .....	3	3
Approved or Free Electives* .....	3	3
	<hr/>	<hr/>
	15	15
<i>Fourth Year</i>		
French 305. (or 400-level courses) .....	6	6
Approved or Free Electives* .....	9	9
	<hr/>	<hr/>
	15	15

**Curriculum in French Education (B.S.)**

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology or Chemistry 103-104. Introduction to Modern Chemistry or Physics 105-106. General Physics .....	4	4
English 101-102. Composition and Literature .....	3	3
French 201-202. Intermediate French .....	3	3
Mathematics 103-104. Freshman Mathematics or Mathematics 107. Algebra and Trigonometry and Mathematics 200. Analytic Geometry and Calculus .....	3	3
Second Foreign Language 101-102. Elementary or Second Foreign Language 201-202. Intermediate .....	3-4	3-4
Physical Education .....	1	1
	<hr/>	<hr/>
	17-18	17-18

\* No more than nine credits may be free electives.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Second Year</i>		
English 201, 202. Western World Literature or		
English 203, 204. English Literature . . . . .	3	3
French 303-304. Advanced Grammar and Translation . . . . .	3	3
Second Foreign Language 201-202. Intermediate . . . . .	3	3
History 201, 202. American History . . . . .	3	3
Psychology 201. General Psychology . . . . .	3	—
Approved Elective . . . . .	—	3
	15	15
<i>Third Year</i>		
French 301, 302. Survey of Literature . . . . .	3	3
French 305. (or 400-level courses) . . . . .	3	3
Second Foreign Language 301, 302. Survey of Literature. . . . .	3	3
Health Education 305. School and Community Health. . . . .	3	—
Economics 203. Introduction to Economics . . . . .	—	3
Education 300. Foundations of Education . . . . .	3	—
Education 301. Human Development and Learning . . . . .	—	3
	15	15
<i>Fourth Year</i>		
		<i>Block</i>
		<i>A B</i>
French 305. (and/or 400-level courses) . . . . .	12	— —
Education 439. Methods and Curriculum in High School. . . . .	—	6 —
Education 486. Supervised Teaching—Secondary . . . . .	—	— 6
Psychology 305. Educational Psychology . . . . .	—	3 —
Approved Elective . . . . .	3	— —
	15	9 6

## HISTORY, POLITICAL SCIENCE, AND GEOGRAPHY

F. EDWARD LUND, Chairman of the Department

Thelma S. Biddle\* / Alden G. Bigelow / William E. Blake, Jr.

Alan V. Briceland / James W. Ely / Janipher R. Greene

Harold E. Greer, Jr. / Daniel P. Jordan / John D. Lyle\* / James T. Moore

Francis C. Nelson / A. A. Rogers / Ruth D. See / Vincent L. Sexton III

Arnold Schuetz / L. Winston Smith / Robert M. Talbert / John S. Taylor

Sara E. Teeter / Jerry B. Thomas / Mary J. Tudor / Dennis G. Waller

Henri J. Warmenhoven / Yun-Yuan Yang

Part time—Robert Lee Gordon, Jr. / Kyotsu Hori / Patricia T. Pober

Joseph L. Stevens

This department administers and teaches the courses in history, political science, and geography. The history courses stress the development of

\* On leave 1970-71.

human institutions and ideas with a view to furthering an understanding of our civilization. In political science, the course offerings emphasize preparation for the intelligent performance of the functions of citizenship.

Courses in this department are designed to serve these purposes: first, to offer the courses required as prerequisites or designated as electives in the curriculum; second, to provide a curriculum in history and social science which offers work leading to the bachelor of science degree in education; and, third, to administer the curriculum in history which leads to the degree of bachelor of arts.

Candidates for the degree of bachelor of arts in history or bachelor of science in history and social science education are required to complete a minimum of 124 credits.

**Curriculum in History (B.A.)**

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
English 101-102. Composition and Literature .....	3	3
Foreign Language 101-102 or 201-202 .....	3-4	3-4
History 101, 102. History of Civilization or		
History 103, 104. History of Modern Europe .....	3	3
Laboratory Science .....	4	4
Mathematics 103-104. Freshman Mathematics or		
Latin or		
Philosophy 201-202. Introduction to Philosophy .....	3	3
	16-17	16-17

*Second Year*

English 201, 202. Western World Literature or		
English 203, 204. English Literature .....	3	3
Foreign Language .....	3	3
History 201, 202. American History .....	3	3
Approved Electives. Humanities and/or		
Social Science .....	6	6
	15	15

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Third Year</i>		
Advanced History Electives . . . . .	6	6
Approved Electives (or language, if needed) . . . . .	3	3
Approved Electives. Humanities and/or		
Social Science . . . . .	3	3
Approved or Free Electives* . . . . .	4	4
	<hr/>	<hr/>
	16	16
<i>Fourth Year</i>		
Advanced History Electives . . . . .	9	9
Approved Electives. Humanities and/or		
Social Science or		
Free Electives* . . . . .	6	6
	<hr/>	<hr/>
	15	15

### **Curriculum in History and Social Science Education (B.S.)**

#### *First Year*

Biology 101-102. General Biology or		
Chemistry 103-104. Introduction to Modern Chemistry or		
Chemistry 101-102. General Chemistry or		
Physics 105-106. General Physics . . . . .	4	4
English 101-102. Composition and Literature . . . . .	3	3
History 101, 102. History of Civilization or		
History 103, 104. History of Modern Europe . . . . .	3	3
Mathematics 103-104. Freshman Mathematics or		
Mathematics 105-106. Basic Mathematics . . . . .	3	3
Sociology 101. General Sociology and		
Sociology Elective . . . . .	3	3
Physical Education . . . . .	1	1
	<hr/>	<hr/>
	17	17

\* No more than nine credits may be free electives.



	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Second Year</i>		
Education 300. Foundations of Education .....	3	—
Economics 201-202. Principles of Economics .....	3	3
English 201, 202. Western World Literature or		
English 203, 204. English Literature .....	3	3
History 201, 202. American History .....	3	3
Political Science 201, 202. American Government .....	3	3
Psychology 201. General Psychology .....	—	3
	15	15

*Third Year*

Education 301. Human Development and Learning .....	—	3
Geography 301, 302. Principles of Geography .....	3	3
History and Political Science Electives (300-400 level courses) .....	9	6
Approved Electives. Humanities .....	3	3
	15	15

*Fourth Year*

	<i>Block</i>	
	<i>A</i>	<i>B</i>
Education 439. Methods and Curriculum in High School. —	3	—
Education 442. Methods in Teaching High School History .....	—	3 —
Education 486. Supervised Teaching, Secondary .....	—	— 6
Health Education 385. School Health .....	3	— —
Psychology 305. Educational Psychology .....	—	3 —
History and Political Science Electives .....	9	— —
Approved Elective .....	3	— —
	15	15

**JOURNALISM**

JACK R. HUNTER, Acting Chairman

George T. Crutchfield / Stephen J. Grabinski / J. Edward Grimsley  
William Turpin

The department of journalism offers a four-year curriculum designed to give the student a broad background in arts and sciences as well as professional competence in reporting, writing, and editing. Several faculty members serve on the staffs of local newspapers.

Special programs may be arranged individually for students whose interests lie in such fields as public relations, rural or community journalism, or photo-journalism. Programs of study can be arranged for transfer students who have completed two years of liberal arts courses at other colleges.

All journalism students are required to perform news, editorial, feature, photographic, and advertising work on the school newspaper *The Commonwealth Times*.

Students are given the opportunity to work, under supervision of part-time faculty members, with the reporters on the daily newspapers of general circulation for the city and county, all of whom are men or women with professional experience. Thus laboratory practice is combined with work in the classrooms. Skill in typewriting is required before the student enters the junior year.

The department endeavors to aid students in obtaining positions after graduation in newspaper, magazine, trade publications, and house organs; in publicity, public relations, and radio and newspaper advertising.

Candidates for the degree of bachelor of science with a major in journalism are required to complete a minimum of 125 credits as indicated in the curriculum outline.

### Curriculum in Journalism (B.S.)

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
English 101-102. Composition and Literature . . . . .	3	3
Foreign Language 101-102*		
or		
Foreign Language 103-104 . . . . .	4-3	4-3
History 101-102. History of Civilization		
or		
History 103, 104. History of Modern Europe . . . . .	3	3
Journalism 101. Mass Communications . . . . .	3	—
Journalism 203. News Reporting . . . . .	—	3
Mathematics 103. Freshman Mathematics . . . . .	3	—
Mathematics 213. Statistics . . . . .	—	3
	16-15	16-15

\* Foreign Language 101-102 should be chosen by those students who intend to continue in that language.

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>Second Year</i>		
Advertising 101. Principles of Advertising . . . . .	3	—
Biology 101-102. General Biology or		
Chemistry 103-104. Introduction to Modern Chemistry or		
Physics 105-106. General Physics** . . . . .	4	4
English 201, 202. Western World Literature or		
English 203, 204. English Literature . . . . .	3	3
History 201, 202. American History . . . . .	3	3
Political Science 201, 202. American Government . . . . .	3	3
Sociology 101. General Sociology . . . . .	—	3
	<hr/>	<hr/>
	16	16
<i>Third Year</i>		
Economics 201-202. Principles of Economics . . . . .	3	3
Journalism 301-302. Basic Photo-Journalism . . . . .	3	3
Journalism 303-304. Advanced Reporting . . . . .	3	3
Journalism 313-314. Commonwealth Times Laboratory or		
Equivalent . . . . .	2	2
Political Science 305. History of Political Thought. . . . .	3	—
Approved or Free Electives*** . . . . .	2	5
	<hr/>	<hr/>
	16	16
<i>Fourth Year</i>		
Journalism 305. Copy Editing . . . . .	3	—
Journalism 306. Newspaper Make-up . . . . .	—	3
Journalism 308. Communications Law . . . . .	—	3
Journalism 407. Newspaper Management . . . . .	3	—
Journalism 413-414. Commonwealth Times Laboratory or		
Equivalent . . . . .	2	2
Approved Electives. Humanities . . . . .	3	3
Approved or Free Electives*** . . . . .	4	4
	<hr/>	<hr/>
	15	15

\*\* Mathematics 103-104 is a concurrent requirement for Physics 103-104.

\*\*\* No more than nine credits may be free electives.

**MATHEMATICS SCIENCES**

WILLIAM A. GLYNN, Chairman of the Department

Stephen B. Cohen / Reuben W. Farley / Robert H. Johnston  
 William H. Journey / Edward H. Lezak / C. Michael Lohr / J. Richard Morris  
 Robert W. Murdock / Malcolm L. Murrill / Edward A. Newburg  
 Pratip N. Raychowdhury / David A. Schedler / Robert J. Schwabauer  
 William A. Thedford / David G. Wilson / James A. Wood

The department offers a bachelor of science degree in mathematics, and, in conjunction with the school of education, offers a degree of bachelor of science in mathematics education to prepare students for teaching in secondary schools.

**Curriculum in Mathematics (B.S.)**

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology		
or		
Chemistry 101-102. General Chemistry and Qualitative Analysis . . . . .	4	4
English 101-102. Composition and Literature . . . . .	3	3
Mathematics 107. Algebra and Trigonometry . . . . .	3	—
Mathematics 200. Calculus with Analytic Geometry . . . . .	—	4
Social Science . . . . .	3	3
Approved Electives . . . . .	3-4	3-4
	<hr/>	<hr/>
	16-17	17-18
<i>Second Year</i>		
English 201, 202. Western World Literature		
or		
English 203, 204. English Literature . . . . .	3	3
Foreign Language.* French, German, or Russian . . . . .	3-4	3-4
Mathematics 201-202. Calculus with Analytic Geometry . . . . .	4	3
Mathematics 300. Sets, Logic, and the Real Number System . . . . .	3	—
Mathematics 310. Linear Algebra . . . . .	—	3
Physics 207-208. University Physics . . . . .	4	4
	<hr/>	<hr/>
	17-18	16-17

\* Students may need to take advanced language courses if they plan to do graduate work.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Third Year</i>		
Foreign Language.* Intermediate French, German, or Russian or		
Approved Electives. Humanities . . . . .	3	3
Mathematics 301. Differential Equations . . . . .	3	—
Mathematics 401. Algebraic Structures . . . . .	—	3
Mathematics Elective Sequence . . . . .	3	3
Physics Electives . . . . .	3-5	3-5
Free Electives** . . . . .	3	3
	15-17	15-17

*Fourth Year*

Mathematics 407-408. Advanced Calculus . . . . .	3	3
Mathematics or		
Science Electives . . . . .	3-4	3-4
Approved or Free Electives** . . . . .	6	6
	12-13	12-13

**Curriculum in Mathematics Education (B.S.)**

Candidates for the degree of bachelor of science in mathematics education follow the bachelor of science curriculum for the first two years, with the following added specifications:

- (1) History 201, 202, American History, is the required social science course.
- (2) One physical education activity is required.
- (3) Economics 203, Introduction to Economics, is strongly recommended.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Third Year</i>		
Education 300. Foundations of Education . . . . .	3	—
Education 301. Human Development and Learning . . . . .	—	3
Mathematics 405-406. Modern Geometry . . . . .	3	3
Mathematics 313-314. Statistical Methods or		
Mathematics 413-414. Mathematical Statistics . . . . .	3	3

\* Students may need to take advanced language courses if they plan to do graduate work.

\*\* No more than nine credits may be free electives.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
Psychology 201. Introduction to Psychology . . . . .	3	—
Mathematics or		
Science Electives . . . . .	3-4	3-4
Speech 308. Speech for Teachers . . . . .	—	3
	<hr/>	<hr/>
	15-16	15-16
 <i>Fourth Year</i>		<i>Block A B</i>
Education 439. Methods and Curriculum in High School. —		6 —
Education 486. Supervised Teaching—Secondary . . . . .		— 6
Health Education 385. School and Community Hygiene. . . . .	3	— —
Mathematics 401. Algebraic Structures . . . . .	3	— —
Mathematics Elective . . . . .	3	— —
Psychology 305. Educational Psychology . . . . .		3 —
Approved Elective . . . . .	3-4	— —
	<hr/>	<hr/>
	12-13	15

## PHILOSOPHY AND RELIGIOUS STUDIES

THOMAS O. HALL, JR., Chairman of the Department

Barney R. Freasier, Sr. / William H. Friedman / James E. Lindsey  
Jerome L. Lonnes / Harlan P. McGhan / Robert M. Talbert

This department offers courses designed to give the student an understanding of the contributions of religion and philosophy to man's life and thought. Special effort is made to relate these fields of study to man's present cultural environment.

Individual guidance is given to those planning graduate study in philosophy. The department also provides an opportunity for students who have chosen church-related vocations to begin their academic preparation with an objective and descriptive study of religion. The student desiring to enroll for courses is urged to consult with both his major department and the department of philosophy and religious studies.

Application to grant the bachelor of arts degree has been submitted.

## PHYSICS AND PHYSICAL SCIENCE

BILLY W. SLOOPE, Chairman of the Department

J. Temple Bayliss / Charles F. Ffolliott / Pratip N. Raychowdhury  
René J. Smith

The department of physics offers the bachelor of science degree through a curriculum designed to give preparation for graduate study, for industrial

and research laboratories or allied areas, and for teaching in the secondary schools.

The curriculum leading to a bachelor of science in physics requires a minimum of 124 credits, including a minimum of 36 hours in physics, of which Physics 207, 208, and 307 (or equivalent) and Physics 301, 304, 308, 311 or 312, 402, and 404 are required. Mathematics 200, 201, 202 (or their equivalent), 301, and nine additional credits in mathematics at the 300 level or above are required.

For the curriculum leading to the B.S. in science see p. 101.

The curriculum leading to a bachelor of science in physics education requires 124 credits, including 20 hours in mathematics and 22 hours in physics. All courses required for certification of secondary school teachers are included. The required courses in physics are Physics 207, 208, and 307 (or equivalent), 301, 304, and 311 or 312. The required courses in mathematics are Mathematics 200, 201, and 202.

**Curriculum in Physics (B.S.)**

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology or		
Chemistry 101-102. General Chemistry . . . . .	4	4
English 101-102. Composition and Literature . . . . .	3	3
Mathematics 107. Algebra and Trigonometry . . . . .	3	—
Mathematics 200. Calculus with Analytic Geometry . . . . .	—	4
Social Studies . . . . .	3	3
Foreign Language* . . . . .	3-4	3-4
	<hr/>	<hr/>
	16-17	17-18
 <i>Second Year</i>		
English 201, 202. Western World Literature or		
English 203, 204. English Literature . . . . .	3	3
Mathematics 200-201. Calculus with Analytic Geometry . .	4	3
Physics 207, 208. University Physics I, II . . . . .	4	4
Approved Electives. Humanities . . . . .	3	3
Approved or Free Electives** . . . . .	3	3
	<hr/>	<hr/>
	17	16

\* Students may need to take advanced language courses if they plan to do graduate work.

\*\* No more than nine credits may be free electives.

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>Third Year</i>		
Mathematics 301. Differential Equations .....	3	—
Mathematics Approved Elective .....	—	3
Physics 301. Electricity and Magnetism .....	—	3
Physics 304. Classical Mechanics .....	3	—
Physics 307. University Physics III .....	3	—
Physics 308. Thermodynamics .....	—	3
Physics 311. Intermediate Laboratory .....	2	—
Approved or Free Electives** .....	3	6
	<hr/>	
	14	15
 <i>Fourth Year</i>		
Mathematics Approved Electives .....	3	3
Physics 402. Introduction to Quantum Mechanics .....	3	—
Physics 404. Atomic and Nuclear Physics .....	—	3
Advanced Physics Course .....	4	4
Approved or Free Electives** .....	3-4	3-6
	<hr/>	
	13-14	13-16

**Curriculum in Physics Education (B.S.)**

The curriculum in physics education for the first and second years is the same as that for physics. Of the 12 hours in social science required as part of the general education studies, six hours must be in American history in order to meet the state certification requirement.

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>Third Year</i>		
Education 300. Foundation of Education .....	3	—
Education 301. Human Development and Living .....	—	3
Mathematics Approved Electives .....	3	3
Physics 301. Electricity and Magnetism .....	—	3
Physics 304. Classical Mechanics .....	3	—
Physics 307. University Physics III .....	3	—
Physics 312. Intermediate Laboratory .....	—	2
Physical Education .....	—	1
Approved Electives .....	3	3
	<hr/>	
	15	15

\*\* No more than nine credits may be free electives.



	<i>Credits</i>		<i>Block</i>	
	<i>1st</i>	<i>2nd</i>	<i>A</i>	<i>B</i>
	<i>Sem.</i>	<i>Sem.</i>		
<i>Fourth Year</i>				
Education 439. Methods and Curriculum in High School.	—	3	—	—
Education 440. Methods in Teaching High School				
Science .....	—	3	—	—
Education 486. Supervised Teaching—Secondary .....	—	—	—	6
Health Education 385. School and Community Hygiene.	3	—	—	—
Physics Elective .....	3	—	—	—
Psychology 305. Educational Psychology .....	—	3	—	—
Approved Electives .....	7	—	—	—
		13		15

## PSYCHOLOGY

EDWIN R. THOMAS, Chairman of the Department

Kent G. Bailey / John A. Blake / Alfred L. Brophy / Joel R. Butler  
 Michael W. Etkin / John T. Fauls / Yvonne H. Gabet / Robert G. Gibby, Jr.  
 William D. Groman / John J. Hartnett / Glenn R. Hawkes / James F. Hooke  
 Phyllis A. Hornbuckle / Madeline C. Hughes / Thomas A. Kirk  
 Richard K. Lore / Melvin V. Lubman / Charles D. Noblin / William S. Ray  
 Leah T. Robinson / Robert M. Tipton / Joseph D. Warner

Part time—Robert G. Gibby, Sr.

The general objective of the department of psychology is to give the student a scientific attitude toward and a better understanding of human behavior; to prepare students for personnel work and for jobs in business and in industry. Those receiving the master's degree work under the supervision of senior psychologists, psychiatrists, and physicians in hospitals, mental institutions, social agencies, and child welfare services, as personnel officers, guidance counselors, etc.

The following degrees are conferred: bachelor of science in psychology, master of science in applied psychology, master of science in clinical psychology. Information on the graduate programs is given in a separate **Graduate Bulletin**, available upon request.

This department offers basic courses in psychology to students majoring in all schools and departments.

The four-year curriculum in psychology leads to the degree of bachelor of science in psychology. Candidates are required to complete a minimum of 124 credits.

**Curriculum in Psychology (B.S.)**

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology .....	4	4
English 101-102. Composition and Literature .....	3	3
Foreign Language 101-102		
or		
Foreign Language 103-104* .....	3-4	3-4
Mathematics 103-104. Freshman Mathematics .....	3	3
Approved or Free Electives** .....	3	3
	16-17	16-17
 <i>Second Year</i>		
English 201, 202. Western World Literature		
or		
English 203, 204. English Literature .....	3	3
Psychology 201-202. General Psychology .....	3	3
Psychology 211. Introduction to Statistics .....	3	—
Sociology 101. General Sociology .....	3	3
Sociology 102. Social Problems in the United States ....	—	3
Sociology 103. Cultural Anthropology .....	—	3
Approved Electives. Humanities .....	3	3
	15	18
 <i>Third Year</i>		
Psychology 301. Child Psychology .....	3	—
Psychology 303. Mental Hygiene .....	—	3
Psychology 317-318. Introduction to Experimental		
Psychology .....	3	3
Approved or Free Electives** (300-level courses).....	10	10
	16	16
 <i>Fourth Year</i>		
Psychology 411. Survey of Psychological Tests .....	3	—
Psychology 451. History of Psychology .....	—	3
Electives. Applied Psychology (300-400 level courses).....	3	3
Approved or Free Electives** .....	9	9
	15	15

\* Students may need to take advanced language courses if they plan to do graduate work.

\*\* No more than nine credits may be free electives.

## **SOCIOLOGY AND ANTHROPOLOGY**

**LEWIS DIANA**, Chairman of the Department

I. Douglass Brown / Albert S. Frances / Jared V. Harper / Noelie R. Herzog  
Edward E. Knipe / Michael J. Miller / Jean Moorefield / John B. Murphy  
Leonard G. Pasierb / Edward H. Peeples, Jr. / Lilla E. Roache  
B. Krishna Singh / Charles W. Thomas III / Sarah White

Like other behavioral sciences, sociology and anthropology are part of a liberal arts tradition in that they help in the understanding of modern life. Consequently, the curriculum in the department of sociology and anthropology has the general aim of broadening the student's understanding of social life in broad conceptual and analytical terms, while at the same time being flexible enough to meet a variety of interests, goals, and capacities of the student.

The department offers multiple programs with specific requirements for students who wish (1) to study sociology and anthropology as part of a liberal arts program, (2) to enter any one of a number of applied fields, and (3) to undertake graduate work.

The curriculum leading to the degree of bachelor of science requires a minimum of 124 credits, including 30 credits in advanced courses in sociology.

### **The Core Curriculum**

The core curriculum consists of those courses required of all students majoring in sociology and anthropology. In addition to Sociology 101 (General Sociology), this core includes Sociology 402 (Sociological Theory); Sociology 416 (Social Statistics); and Sociology 420 (Methods of Sociological Research). Of the total 36 credits, 24 must be in advanced courses (300-400).

### **The Block System**

The courses offered by the department are divided into three general blocks, as shown below. All majors must complete at least 24 credits from the three blocks, with a minimum of six credits in courses from Block 1; six credits from Block 2; and three credits from Block 3.

#### **Block 1:**

- Sociology 200: The Community
- Sociology 304: Sociology of the Family
- Sociology 315: Sociology of Education
- Sociology 318: Social Thought
- Sociology 323: Marriage Relations
- Sociology 327: Urban Sociology
- Sociology 421: Social Stratification
- Sociology 426: Population
- Sociology 436: Industrial Sociology
- Sociology 445: Medical Sociology
- Sociology 475: Social Organization

**Block 2:**

- Sociology 102:** Social Problems in the United States
- Sociology 210:** Collective Behavior
- Sociology 331:** Juvenile Delinquency
- Sociology 403:** Criminology
- Sociology 422:** Minority Groups

**Block 3:**

- Sociology 103:** Cultural Anthropology
- Sociology 251:** Introduction to Archeology
- Sociology 352:** Social and Cultural Change
- Sociology 369:** Urban Anthropology
- Sociology 428:** Comparative Urban Systems
- Sociology 451:** Social Anthropology
- Sociology 454:** Anthropological Theory

Courses not listed in the three blocks above may be taken only as electives.

**Undergraduate Topical Seminar**

Sociology 499, Topical Seminar in Sociology and Anthropology, is an integral part of the program. Depending on the nature of the seminar, the credits earned in such a seminar may, with the permission of the chairman, fulfill the requirements in an appropriate block.

**Junior and Senior Tutorials**

Sociology 390 and 490 are designed for juniors and seniors capable of doing independent work on selected topics under the direction of specific faculty members. For example, if a course is not being regularly offered in some area of interest to a particular student, and if there are not enough students interested in the area to warrant the offering of a topical seminar, the student may, with the permission of the instructor, enroll in the tutorial program. Credits earned in this program may, with the permission of the chairman, be applied against requirements in an appropriate block.

**Graduate Program in Sociology**

For information about the master's program in sociology, see the **Graduate Bulletin**, available upon request.

**Curriculum in Sociology (B.S.)**

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology .....	4	4
English 101-102. Composition and Literature .....	3	3
Foreign Language 101-102		
or		

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
Foreign Language 103-104* .....	3-4	3-4
Mathematics 103. Freshman Mathematics .....	3	—
Mathematics 104. Freshman Mathematics or		
Mathematics 213. Introduction to Statistics .....	—	3
Sociology 101. General Sociology .....	3	—
Sociology Elective .....	—	3
	16-17	16-17

*Second Year*

English 201, 202. Western World Literature or		
English 203, 204. English Literature .....	3	3
History 101, 102. History of Civilization or		
History 103, 104. History of Modern Europe .....	3	3
Psychology 201. General Psychology .....	3	—
Approved Electives. Humanities .....	3	3
Sociology Elective .....	3	3
Approved or Free Electives** .....	—	3
	15	15

*Third Year*

Sociology 416. Social Statistics .....	3	—
Sociology 420. Research Methods in the Social Sciences..	—	3
Sociology Electives .....	6	6
Approved or Free Electives** .....	7	7
	16	16

*Fourth Year*

Sociology 402. Sociological Theory .....	3	—
Sociology Electives .....	6	9
Approved or Free Electives** .....	6	6
	15	15

\* Students may need to take advanced language courses if they plan to do graduate work.

\*\* No more than nine credits may be free electives.

## COURSES OF STUDY IN THE SCHOOL OF ARTS AND SCIENCES

### INTERDISCIPLINARY COURSES

The following two courses are the first of several interdisciplinary courses to be developed in the near future. These courses will be taught by a number of faculty members drawn from several departments, with the aim of assisting the student to gain a broader understanding of ideas and the interrelationships among several fields of study. Registration in these courses is open to all students at VCU with sophomore standing.

**Humanities 201, 202 The Great Ideas of Civilized Man** Semester course; 3 lecture hours. 3, 3 credits. Prerequisite: Sophomore standing. • An interdisciplinary course structured around archetypal themes, an exploration in depth of ideas which have occupied the thoughts of mankind. Will include selected readings from literature, philosophy, and religion.

**Social Science 201, 202 The Dynamics of Rapid Social Change** Semester course; 3 lecture hours. 3, 3 credits. Prerequisite: Sophomore standing. • An interdisciplinary course dealing with rapid social change, including case studies, theories, methods and techniques of change.

### AFRO-AMERICAN STUDIES

The following courses in the area of Afro-American studies are open to all students, subject to curricular requirements for their degree programs. Courses in Afro-American studies are designed to help students gain knowledge and appreciation of the black people and their contributions.

#### COURSES IN AFRO-AMERICAN STUDIES

**Afro-American Studies 100 Africanism** Semester course; 3 lecture hours. 3 credits. • An exploration of the world of the black man. Through discussion and field experiences, as well as traditional educational techniques, emphasis will be on worldwide conditions, problems, and achievements of the black peoples.

**Afro-American Studies 201, 202 Introduction to Afro-American Studies** Semester courses; 3 lecture hours. 3 credits. • A broad overview of the historical, social, economic, psychology, and cultural aspects of Afro-American life.

**Afro-American Studies 300 Personality and Behavior of the Afro-American** Semester course; 3 lecture hours. 3 credits. Prerequisite: Psychology 201. • A study of personality factors, such as motivation, ego functioning, and the socialization processes with special emphasis on living conditions of Afro-Americans. (Same as Psychology 322.)

**Afro-American Studies 310 Economics and Poverty** Second semester; 3 lecture hours. 3 credits. Prerequisite: Economics 201-202. • A study of the economic problems of low-income groups and agency and foundation programs designed to encounter these problems. (Same as Economics 310.)

See also:

**English 314 Black American Writers**  
**Geography 333 Geography of Africa**  
**History 409 Survey of the History and Culture of Africa**  
**History 410 Americans from Africa**

## COURSES IN BIOLOGY

**Biology 101-102 General Biology** Year course; 3 lecture and 2 laboratory hours. 8 credits. • An introductory course to present the fundamental processes of life through the study of the taxonomy, morphology, and physiology of plants and animals and their relationship to their environment.

**Biology 103-104 Anatomy and Physiology** Year course; 2 lecture and 2 laboratory hours. 6 credits. • A study of the normal structure and function of the human body. **Open only to students in hospital-affiliated, medical secretarial, and radiologic technology programs.**

**Biology 108 Microbiology** Both semesters; 2 lecture and 2 laboratory hours. 3 credits. • A study of the microscopic agents of disease, including methods of disinfection, factors of infecting and immunity, and an introduction to the important infectious diseases. Laboratory emphasis is on methods of study and proper techniques. **Open only to hospital-affiliated students.**

**Biology 201 Vertebrate Morphology** Semester course; 2 lecture and 6 laboratory hours. 4 credits. Prerequisite: Biology 101-102. • The evolution of vertebrate forms as demonstrated by anatomical studies of selected vertebrate types.

**Biology 202 Vertebrate Embryology** Semester course; 2 lecture and 6 laboratory hours. 4 credits. Prerequisite: Biology 101-102. • A comparative study of vertebrate development.

**Biology 204 Invertebrate Zoology** Second semester; 2 lecture and 6 laboratory hours. 4 credits. Prerequisite: Biology 101-102. • A survey of the invertebrate animals, examining morphologies, life cycles, evolutionary relationships, and the importance of these organisms to man. Selected representative species will be studied in detail in the laboratory.

**Biology 205 Basic Human Anatomy** First semester; 2 lecture and 4 laboratory hours. 4 credits. Prerequisite: Biology 101-102. • A study of human body structure with emphasis on the skeleto-muscular aspect, utilizing the cat for dissection and human specimens and models as demonstrations.

**Biology 206 Human Physiology** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: Biology 101-102. • A study of the functioning of the human body with emphasis on the experimental procedures.

**Biology 207 Survey of the Plant Kingdom** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: Biology 101-102. • A study of representative plants and their life cycles.

**Biology 208 Botany of the Seed Plant** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: Biology 101-102. • A study of the physiology, structure, and development of the seed plant.

**Biology 300 Drugs and Their Actions** Semester course; 3 lecture hours. 3 credits. • A consideration of how selected drugs act, their effects, and their interactions. A course designed as a general education offering for all interested students.

**Biology 303 Bacteriology** First semester; 2 lecture and 6 laboratory hours. 4 credits. Prerequisite: Biology 101-102. • A study of the morphology and physiology of bacteria, yeasts, and molds as applied to their cultivation, identification, economic, and hygiene significance.

**Biology 304 Mycology** Second semester; 2 lecture and 6 laboratory hours. 4 credits. Prerequisite: Biology 303 or permission of instructor. • The morphology, identification, and laboratory culture of fungi.

**Biology 305 Gross Human Anatomy** First semester; 2 lecture and 4 laboratory hours. 4 credits. Prerequisites: Biology 101-102 and permission of the instructor. • A regional and systematic study of the basic structure of the human body, using models, prosected specimens, and the dissected cadaver.

**Biology 308 Vertebrate Histology** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: Biology 101-102. • The microscopic structure of vertebrate tissues and organs and the techniques used in the preparation of materials for histological study.

**Biology 309 Entomology** Semester course; 2 lecture and 6 laboratory hours. 4 credits. Prerequisite: Biology 101-102. • A course designed to give the student an appreciation of insect life. Field and laboratory work is emphasized to illustrate insect diversification, diagnostic features, habitats, and development patterns. A project is required, and some independent work will be necessary.

**Biology 310 Genetics** First semester; 3 lecture hours. 3 credits. Prerequisite: Biology 101-102. • The basic principles of genetics and eugenics with emphasis on their applications.

**Biology 310L Genetics Laboratory** First semester; 3 laboratory hours. 1 credit. Prerequisite: Biology 101-102. • Practical experience in the gathering and analysis of genetical data. Can only be taken concurrently with Biology 310.

**Biology 311 General Physiology** First semester; 3 lecture and 3 laboratory hours. 4 credits. Prerequisites: Biology 101-102 and Chemistry 101-102. • Physiological principles illustrated by cells, tissues, organs, and organisms from the viewpoint of chemical and physical phenomena.

**Biology 313 Vertebrate Natural History I—Fishes, Amphibians, and Reptiles** First semester; 2 lecture and 3 laboratory hours. 3 credits. Prerequisite: Biology 101-102. • The natural history of fishes, amphibians, and reptiles, with emphasis upon species native to Virginia.



**Biology 314 Vertebrate Natural History II—Birds and Mammals** Second semester; 2 lecture and 3 laboratory hours. 3 credits. Prerequisite: Biology 101-102. • The natural history of birds and mammals, with emphasis upon species native to Virginia.

**Biology 315 Man and Environment** 3 lecture hours. 3 credits. Open to non-majors. Prerequisite: Junior or senior status. • Not applicable to the biology major. A comparative study of the ecology and natural history of human populations, including the environments as determining factors in the evolution of human institutions and technology, resource management, and population crises, cultural traditions as mechanisms of population control, basic theory of population biology.

**Biology 332 Environmental Pollution** Second semester; 3 lecture hours. 3 credits. • An introduction to the causes and effects of air and water pollution in our environment with emphasis on the procedures for detection and abatement.

**Biology 400 Ecology** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: 12 credits in biology. • A study of the interaction of the organism and the biological and physical environments.

**Biology 401 Industrial Microbiology** Semester course; 3 lecture hours. 3 credits. Prerequisite: Biology 303 or equivalent. • General survey of microorganisms of industrial importance with special reference to the paper, food, textile, paint, petroleum, tobacco, chemical, and pharmaceutical industries.

**Biology 402 Functional Anatomy of the Extremities** Second semester; 1 lecture hour and 6 laboratory hours. 3 credits. Prerequisite: Biology 305. • A detailed study of the anatomy of the extremities, with particular emphasis on functional aspects, by dissection of the human cadaver.

**Biology 403 Biology of Fishes** Semester course; 2 lecture and 6 laboratory hours. 4 credits. Prerequisite: Biology 201 or permission of instructor. • Evolution, taxonomy, structure, behavior, and ecology of fishes. Laboratory work will include special field trips for the collection of specimens.

**Biology 405 Bacterial Physiology** Second semester; 3 lecture hours. 3 laboratory hours. 4 credits. Prerequisite: Biology 303 or permission of instructor. • The physiology of bacterial metabolism and growth, industrial and economically important bacteria will be stressed.

**Biology 407-408 Special Problems** Continuous course. Credit to be arranged. Prerequisite: Consent of the department chairman. • Independent study or research for qualified students, under the direction of a staff member.

**Biology 409 Plant Anatomy** Semester course; 2 lecture and 6 laboratory hours. 4 credits. Prerequisite: Biology 208. • Preparation and study of cells, tissues, and organs of seed plants.

**Biology 410 Spring Flora** Second semester; 1 lecture hour and 5 laboratory hours. 3 credits. Prerequisite: Biology 101-102 or permission of instructor. • Identification of the higher vascular plants in the Richmond area. Laboratory work will include field trips for the collection of materials.

**Biology 411 Summer Flora** Semester course; 1 lecture hour and 5 laboratory hours. 3 credits. Prerequisite: Biology 101-102 or permission of instructor. • Field course in taxonomy of local summer flora.

**Biology 412 Radiation Biology** Semester course; 3 lecture hours. 3 credits. Prerequisite: 16 credits in science, including eight credits in biology and/or the permission of the instructor. • A presentation by a series of lectures and demonstrations of the fundamentals of radioactivity, including the properties of radiation and the application of radioisotopes and tracer methodology to the biological sciences and nuclear medicine. Included are the biological effects of ionizing radiation on living systems and the theoretical and practical aspects of radiation protection.

**Biology 413 Parasitology** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: 14 credits in biology or permission of instructor. • A survey of the life cycles, classification, host-parasite relationships, and general biology of animal parasites.

**Biology 414 Aquatic Ecology** 2 lecture and 6 laboratory hours. 4 credits. Prerequisite: 12 credits in biology or permission of instructor. • An ecological approach to the physical, chemical, and biological study of fresh water environments with particular consideration given to the methods and principles of evaluating water quality.

**Biology 416 Ornithology** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: Biology 101-102 or permission of instructor. • Basic biology of birds, with emphasis on their role in the environment.

**Biology 417 Mammalogy** Semester course; 2 lecture and 3 laboratory hours. 3 credits. Prerequisites: Biology 101-102 and permission of instructor. • Study of the characteristics, adaptive radiation, and distribution of mammals, with emphasis on North American forms.

**Biology 418 Plant Ecology** Second semester; 3 lecture and 2 laboratory hours. Two 3-day field trips required. 4 credits. Prerequisite: Biology 400 or consent of instructor. • A lecture, field, and laboratory course concerned with the development, succession, and dynamics of plant communities and their interrelations with climate, soil, biotic, and historic factors.

**Biology 420 Plant Physiology** Second semester; 3 lecture and 3 laboratory hours. 4 credits. Prerequisites: Biology 207 or 208 and Chemistry 301-302. • Cell structure and function, water relations, inorganic plant nutrition, metabolism, and plant growth regulators.

**Biology 425 Kinesiology** Semester course; 1 lecture hour and 2 laboratory demonstrations. 2 credits. Prerequisite: Biology 305 or permission of instructor. • A study of the anatomical, physiological, and physical aspects of human motion.

**Biology 426 Physiological Ecology** Semester course; 3 lecture and 4 laboratory hours. 4 credits. Prerequisite: Biology 400 or 414 or equivalent. • Studies of the physiological adjustments and adaptations made by organisms in response to their environment.

**Biology 429 Neuroanatomy** Second semester; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: Biology 305 or permission of instructor. • A study of the morphology and functional aspects of the central and peripheral nervous system of the human body.

## COURSES IN CHEMISTRY

**Chemistry 101-102 General Chemistry and Qualitative Analysis** Year course; 3 lecture and 4 laboratory hours. 8 credits. Prerequisite or concurrent: Mathematics 103 or 107. • Fundamental principles and theories of inorganic chemistry. Second semester laboratory consists of qualitative analysis.

**Chemistry 103-104 Introduction to Modern Chemistry** Year course; 3 lecture and 3 laboratory hours. 8 credits. • Fundamental principles and theories to provide an understanding of the scope and aims of modern chemistry with some emphasis on descriptive inorganic, organic, biochemistry, and geochemistry. For the non-science and non-engineering student. This course will not be accepted as a prerequisite for advanced chemistry courses.

**Chemistry 105 Survey of Chemistry** Both semesters; 3 lecture and 2 laboratory hours. 4 credits. • An elementary survey of inorganic and organic chemistry with emphasis on medical applications. Does not satisfy laboratory science requirements for any degree program.

**Chemistry 202 Quantitative Analysis** Semester course; 2 lecture and 6 laboratory hours. 4 credits. Prerequisites: Chemistry 101-102 or equivalent and Mathematics 103-104 or equivalent. • Beginning theory and practice of gravimetric, volumetric, and instrumental analysis techniques.

**Chemistry 301-302 Organic Chemistry** Year course; 3 lecture and 4 laboratory hours. 8 credits. Prerequisite: Chemistry 101-102 or equivalent. • A comprehensive survey of the aliphatic and aromatic series of organic compounds.

**Chemistry 303 Physical Chemistry** Semester course; 3 lecture hours. 3 credits. Prerequisites: Physics 207-208 and Mathematics 201-202. • Ideal and non-ideal gases, thermodynamics, free energy, and chemical equilibrium.

**Chemistry 304 Physical Chemistry** Semester course; 3 lecture hours. 3 credits. Prerequisite: Chemistry 303. • Quantum chemistry, molecular spectroscopy and structure, and chemical kinetics.

**Chemistry L304 Physical Chemistry Laboratory** Semester course; 8 laboratory hours per week. 2 credits. Prerequisite: Chemistry 202. Corequisite: Chemistry 304.

**Chemistry 305 Introduction to Physical Chemistry** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: Chemistry 301-302. • Concepts and principles of physical chemistry as related to the fields of biology, medicine, and veterinary science. Not for chemistry majors.

**Chemistry 401 Advanced Physical Chemistry** Semester course; 3 lecture hours. 3 credits. Prerequisite: Chemistry 303-304 or permission of in-

structor. • Solution thermodynamics, heterogeneous equilibria, electrochemistry, and introductory biophysical chemistry.

**Chemistry L401 Advanced Physical Chemistry Laboratory** Semester course; 4 laboratory hours per week. 1 credit. Prerequisite: Chemistry L304 or permission of instructor. Corequisite: Chemistry 401.

**Chemistry 403 Qualitative Organic Chemistry** Semester course; 2 lecture and 6 laboratory hours. 4 credits. Prerequisite: Chemistry 301-302. • Theory, problems, and laboratory practice of systematic qualitative analysis for organic compounds with emphasis on modern spectrometric and chromatographic methods.

**Chemistry 404 Advanced Organic Chemistry** Semester course; 3 lecture hours. 3 credits. Prerequisite: Chemistry 301-302 and Chemistry 303-304 or permission of instructor. • An extensive treatment of certain topics of organic chemistry with emphasis on mechanism of reactions, structure, and stereochemistry.

**Chemistry 406 Advanced Inorganic Chemistry** Semester course; 3 lecture hours. 3 credits. Prerequisite: Chemistry 303-304. • Advanced treatment of atomic structure, chemical bonding, properties of the elements, metal complexes, acid-base theory, and related subjects.

**Chemistry 407, 408 Special Problems** Semester courses; 3 laboratory hours per credit. Credit to be arranged. Prerequisite: consent of department chairman. • Senior research. Investigation of chemical problems through literature search and experimentation.

**Chemistry 409 Advanced Analytical Chemistry** Semester course; 2 lecture and 6 laboratory hours. 4 credits. Prerequisite: Chemistry 303-304. • Theory and practice of modern spectrophotometric, electroanalytical, and chromatographic techniques. Atomic absorption, selective ion electrodes, and uses of operational amplifiers.

**Chemistry 410 Atomic and Molecular Structure** Semester course; 3 lecture hours. 3 credits. Prerequisite: Chemistry 303-304. • Survey of the pertinent aspects of quantum mechanics. Line spectra, atomic structure, and molecular bonding.

## COURSES IN ENGLISH

**English 001 Review of English Fundamentals** Semester course; 3 lecture hours. No credits. (Offered only in the Evening College.) • An intensive review of the fundamentals of English grammar, usage, punctuation, mechanics, and spelling; paragraph and theme development; regular exercises and compositions. (Especially recommended for those whose previous preparation in English has been inadequate or for those who wish to improve their writing and speaking. May be taken simultaneously with English 101.)

**English 101-102 Composition and Literature** Continuous course; 3 lecture hours. 3-3 credits. • Composition and rhetoric; regular themes; readings and discussions; reports and conferences; research paper; types of contemporary literature; prosody.

**English 201, 202 Western World Literature** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: English 101-102. • A general study of Western world literature, including English and American literature. First semester: Homer to Shakespeare. Second semester: Milton to Faulkner.

**English 203, 204 English Literature** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: English 101-102. • A survey of the literature of England with collateral readings, discussions, and reports. First semester: *Beowulf* to Johnson. Second semester: Wordsworth to Auden.

**English 205, 206 American Literature** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: English 101-102. • A survey of the literature of the United States. First semester: before 1855. Second semester: since 1855.

**Note: English 101-102 and 6 credits from English 201, 202, 203, 204, 205, or 206 are prerequisite to all the following English courses.**

**English 303 Modern Grammar** Semester course; 3 lecture hours. 3 credits. • A systematic study of formal English grammar and syntax.

**English 304 Advanced Composition** Semester course; 3 lecture hours. 3 credits. • A review of rhetoric and the forms of discourse with emphasis on exposition.

**English 305-306 Creative Writing: Poetry** Continuous course; 3 lecture hours. 3-3 credits. Prerequisites: English 201, 202, or 203, 204 and permission of the instructor. • A course for students interested in the writing and appreciation of poetry. Instruction in a variety of techniques and guidance toward constructive self-criticism. Classwork includes writing, reading, recordings, discussion, and criticism.

**English 307-308 Creative Writing: Story Writing** Continuous course; 3 lecture hours. 3-3 credits. Prerequisites: English 201, 202 or 203, 204 and permission of the instructor. • An intensive study of the techniques of the short story with weekly writing assignments. Classwork includes analysis and criticism of student stories as well as those by contemporary professional writers.

\***English 313 Southern Literature** Semester course; 3 lecture hours. 3 credits. • An intensive survey of the literature of the South with special attention to the works of Poe, Kennedy, Page, Cabell, Glasgow, Caldwell, Welty, McCullers, and Faulkner.

\***English 314 Black American Writers** Semester course; 3 lecture hours. 3 credits. • An examination of the contributions of black writers in America from colonial times to the present.

\***English 315 Modern Fiction** Semester course; 3 lecture hours. 3 credits. • An examination of the short story and the novel in the 20th century.

\***English 316 Modern Poetry** Semester course; 3 lecture hours. 3 credits. • A study of British and American poetry in the 20th century.

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\* Courses offered in alternate years.

\***English 317 Modern Drama** Semester course; 3 lecture hours. 3 credits. ● A study of the development of the drama since Ibsen, particularly in England and America.

\***English 319 English Literature, 1660-1744** Semester course; 3 lecture hours. 3 credits. ● The age of Dryden and Pope; English nondramatic literature of the Restoration and early 18th century with special attention to Dryden, Defoe, Addison, Steele, Swift, Pope, and Gay.

\***English 320 English Literature, 1744-1798** Semester course; 3 lecture hours. 3 credits. ● The age of Johnson, Boswell, and Goldsmith; an intensive survey of the literature of the second half of the 18th century in England.

**English 321 Romantic Literature** Semester course; 3 lecture hours. 3 credits. ● An intensive survey of the literature of Romanticism in England from 1798 to 1837, with special attention to Wordsworth, Coleridge, Byron, Shelley, and Keats.

\***English 322 Victorian Poetry** Semester course; 3 lecture hours. 3 credits. ● An intensive survey of the poetry of Victorian England, with special attention to Tennyson, Browning, Arnold, Rossetti, Swinburne, Morris, Hopkins, and Yeats.

\***English 323 Victorian Prose** Semester course; 3 lecture hours. 3 credits. ● An intensive survey of the non-fiction prose of Victorian England, with special attention to Carlyle, Ruskin, Arnold, Newman, Mill, and Pater.

\***English 324 English Literature 1890-1918** Semester course; 3 lecture hours. 3 credits. ● British literature of the 1890's (the Decadents, the Aesthetes, *Fin de siècle*, the Celtic Renaissance), the Edwardians, and the war poets.

\***English 371 American Literature, Colonial and Federal** Semester course; 3 lecture hours. 3 credits. ● A study of the most important writings from the founding of the first colonies to the establishment of the federal government, with some concentration on Taylor, Edwards, and Franklin.

\***English 372 American Literature, the American Renaissance** Semester course; 3 lecture hours. 3 credits. ● A study of the most important writings of the romantics in the 19th century, with some concentration on Poe, Emerson, Thoreau, Hawthorne, Melville, and Whitman.

\***English 373 American Literature, Realism and Naturalism** Semester course; 3 lecture hours. 3 credits. ● A study of the most important writings from the end of the Civil War to the coming of World War I, with some concentration on Clemens, Howells, James, and Stephen Crane.

\***English 374 American Literature, Early 20th Century** Semester course; 3 lecture hours. 3 credits. ● A study of the most important writings between World War I and World War II, with some concentration on Frost, Eliot, Steinbeck, Hemingway, and Faulkner.

**\*English 375 American Literature, Contemporary** Semester course; 3 lecture hours. 3 credits. • A study of the most important writings since World War II, with some attention to such authors as Baldwin, Bellow, Ellison, Lowell, Mailer, Malamud, Updike, and Wilbur.

**English 401 Shakespeare** Semester course; 3 lecture hours. 3 credits. • A study of representative comedies, histories, and tragedies.

**English 402 Chaucer** Semester course; 3 lecture hours. 3 credits. • A study of *The Canterbury Tales* and *Troilus and Criseyde*, with some attention to the lesser works.

**English 403 Milton** Semester course; 3 lecture hours. 3 credits. • A study of *Paradise Lost*, *Paradise Regained*, and *Samson Agonistes*, with some attention to the minor poems and selected prose.

**\*English 407 Medieval Epic and Romance** Semester course; 3 lecture hours. 3 credits. • A study of the vernacular epic and the romance in England and on the continent prior to 1500.

**\*English 414 The American Novel** Semester course; 3 lecture hours. 3 credits. • A study of the American novel from 1789 to the present, with particular emphasis on Cooper, Hawthorne, Melville, Twain, Howells, James, Dreiser, Fitzgerald, Hemingway, and Faulkner.

**\*English 415 English Novel, 18th Century** Semester course; 3 lecture hours. 3 credits. • A study of the English novel from its beginnings through Jane Austen.

**\*English 416 English Novel, 19th Century** Semester course; 3 lecture hours. 3 credits. • A study of the English novel from Scott through Hardy.

**English 421, 422 Comparative Literature** Semester courses; 3 lecture hours. 3, 3 credits. • A comparative study of the forms and contents of the literature of Western civilization in translation with some attention to the dominant influence on and interrelationships between English and continental literatures. First semester: ancient, medieval, and renaissance. Second semester: neo-classical, romantic, and modern.

**\*English 423 English Drama, 900-1642** Semester course; 3 lecture hours. 3 credits. • A study of the origin of the English drama and its development until the closing of the theaters in 1642, exclusive of Shakespeare.

**\*English 424 English Drama, 1660-1800** Semester course; 3 lecture hours. 3 credits. • A study of the English drama of the Restoration and 18th century from Dryden and Congreve to Sheridan and Goldsmith.

**English 428 Children's Literature** See Education 428.

**\*English 431 Literary Criticism** Semester course; 3 lecture hours. 3 credits. • A study of the fundamental concepts involved in the practice of criticism. Some attention is given to the historical development of criticism, but the primary focus is on its methods and aims.

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\* Courses offered in alternate years.

• **English 441 Renaissance Literature** Semester course; 3 lecture hours. 3 credits. • A survey of the non-dramatic literature of the 16th century in England from Skelton to Spenser.

• **English 442 17th Century Literature** Semester course; 3 lecture hours. 3 credits. • A study of non-dramatic poetry and prose in England from 1600 to 1660.

**English 446 Literature for Adolescents** See Education 446.

• **English 450 Introduction to General Linguistics** Semester course; 3 lecture hours. 3 credits. • Introduction to linguistic theory and methodology, including descriptive and historical linguistics; presentation of theories of language and linguistic systems.

**English 451 History of the English Language** Semester course; 3 lecture hours. 3 credits. • The historical development of the English language; etymology, morphology, orthography, and semantics.

**English 499 Senior Seminar** Semester course; 3 seminar hours. 3 credits. Admission by invitation of the department. • A study in depth of a literary topic, or one or two major writers in English or American literature, or a literary genre as directed by the instructor. Students will present papers on assigned topics for critical discussion.

#### **English course for Engineering Technology Students**

**English 107 English Communications** Both semesters; 5 lecture hours. 3 credits. • This course includes the following areas of study: sentence structure, using resource materials, written and oral expression and improving reading efficiency. (For school of engineering technology students.)

### **COURSES IN FRENCH**

**French 101-102 Elementary French** Year course; 5 lecture hours and 1 laboratory hour. 8 credits.

**French 201-202 Intermediate French** Year course; 3 lecture hours and 1 laboratory hour. 6 credits. Prerequisite: French 101-102 or 2 units of high school French. • Rapid review of the essentials of grammar; conversation, readings from French literature. Students entering with more than two high school units in French will not receive credit for this course.

**French 301, 302 Survey of Literature** Semester course; 3 lecture hours. 3, 3 credits. Conducted in French. Prerequisite: French 201-202 or the equivalent. • First semester: through the 18th century. Second semester: 19th and 20th centuries.

**French 303-304 Advanced Grammar and Translation** Year course; 3 lecture hours. 6 credits. Prerequisite: French 201-202 or the equivalent. • A systematic review of French grammar with emphasis on the elements of style and vocabulary building; translation of English stylists.

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\* Courses offered in alternate years.



**French 305 French Civilization** Semester course; 3 lecture hours. 3 credits. Prerequisite: French 201-202 or the equivalent. • The geography and history of France, the French people, their political, social, and economic life, and their culture as reflected in the arts, sciences, philosophy, music, and education.

**French 311, 312 Introduction to Literature** Semester courses; 3 lecture hours. 3, 3 credits. Taught in French. Prerequisite: French 201-202 or the equivalent. • First semester: A reading course in French literature; oral and written "exposés" of the short stories of 19th and 20th century authors. Second semester: Emphasis on contemporary writers and critical reviews of journals. (No credit for language majors.)

**French 301, 302 Survey of Literature** is prerequisite to all of the following courses

**French 411 The Middle Ages** Semester course; 3 lecture hours; 3 credits. Prerequisite: French 301, 302 Survey of Literature. • Reading and discussion of the following: La Chanson de Roland, Chrétien de Troyes, Erec et Enide; Aucassin et Nicolette; Villon.

**French 412 The 16th Century** Semester course; 3 lecture hours. 3 credits. Prerequisite: French 301, 302 Survey of Literature. • A study of the Rhétoriqueurs; Rabelais; the Court of Francis I; the Pléiade; selections from Montaigne's *Essais*; the Baroque poets.

**French 413, 414 The 17th Century** Semester course; 3 lecture hours. 3, 3 credits. Prerequisite: French 301, 302 Survey of Literature. • First semester: Readings from the Baroque and Classical prose and poetry of the principal authors of the 17th century; Pascal, La Fontaine, Boileau, La Rochefoucauld, La Bruyère. Second semester: Dramatic literature, emphasizing the works of Corneille, Molière, and Racine.

**French 416 The 18th Century** Semester course; 3 lecture hours. 3 credits. Prerequisite: French 301, 302 Survey of Literature. • Principal movements in the various genres; the *philosophes*; the growth of liberalism as reflected in the literature of Montesquieu, Voltaire, Diderot, and Rousseau. Readings from Marivaux, Prévost, and Vauvenargues.

**French 417 The 19th Century** Semester course; 3 lecture hours. 3 credits. Prerequisite: French 301, 302 Survey of Literature. • Pre-Romanticism: Mme. de Staël, Rousseau, and Chateaubriand. The Romantic Movement: Lamartine, Hugo, Vigny, Musset, Balzac, and Stendhal. The age of Positivism and Realism: Flaubert, Naturalism and Symbolism.

**French 420 The 20th Century** Semester course; 3 lecture hours. 3 credits. Prerequisite: French 301, 302 Survey of Literature. • Reading and discussion of the most important novels from Proust to Camus, with special emphasis on Proust, Gide, and Mauriac. A study of the major playwrights, particularly Giraudoux, Anouilh, and Claudel. Poetry from the Surrealists to the contemporary poets.

## COURSES IN GEOGRAPHY

**Geography 301, 302 Principles of Geography** Semester course; 3 lecture hours. 3, 3 credits. • First semester: Emphasizes climate, weather, land-

forms, soils, and vegetation. Second semester: Emphasizes population, distribution of groups, and how groups of people live and make a living.

**Geography 307 Geography of Europe** First semester; 3 lecture hours. 3 credits. • A survey of the European continent, including the climate, surface features, natural resources, population, agriculture, industry, and the trade of each European nation and that nation's position in the world today.

**Geography 322 World Political Geography** Semester course; 3 lecture hours. 3 credits. • A study of geographic factors in world power and international affairs. First semester: Topics such as resources, national unity, boundaries, etc., are discussed. Second semester: Specific areas of international tension will be considered.

**Geography 333E Geography of Africa** Semester course; 3 lecture hours. 3 credits. • A study of the land forms, climate, peoples, boundaries, trade, and cultural groupings of the African continent.

**Geography 345 Geography of Latin America** 3 lecture hours. 3 credits. • A study of natural conditions, resources, peoples, and cultures of South America, Mexico, Central America, and the Caribbean.

## COURSES IN GERMAN

**German 101-102 Elementary German** Year course; 5 lecture hours and 1 laboratory hour. 8 credits. • Elementary grammar, reading, and oral drill. Students entering with more than one high school unit in German will not receive credit for this course.

**German 103-104 Fundamentals of German** Year course; 3 lecture hours each semester. 6 credits. • Elementary grammar, emphasis on translation. Designed for students especially desiring a course in reading German. Open only to students majoring in science, music, or art. Students contemplating taking more than one year of German should register for German 101 Elementary German.

**German 201-202 Intermediate German** Year course; 3 lecture hours and 1 laboratory hour. 6 credits. Prerequisite: German 101-102 or 2 units of high school German. • Rapid review of the essentials of grammar; conversation; readings from German literature. Students entering with more than two high school units in German will not receive credit for this course.

**German 301, 302 Survey of Literature** Semester courses; 3 lecture hours. 3, 3 credits. Conducted in German. Prerequisite: German 201-202 or the equivalent. • First semester: German Romanticism through the literature of the first half of the 19th century. Second semester: Contemporary German literature.

**German 303-304 Advanced Grammar and Translation** Year course; 3 lecture hours. 6 credits. Prerequisite: German 201-202 or the equivalent. • A systematic review of German grammar with emphasis on the elements of style and vocabulary building; translation of English stylists.

**German 301, 302 or 303-304 are prerequisite to all of the following courses.**

**German 351 Literature of the Late 18th Century** Semester course; 3 lecture hours. 3 credits. Conducted in German. • The major writers and genres during the periods of preclassicism and **Sturm und Drang**.

**German 352 German Classicism** Semester course; 3 lecture hours. 3 credits. Conducted in German. • A course centering around the works of Goethe and Schiller. Other major writers of the period will be studied to lend breadth and understanding.

**German 353 Literature of the Early 19th Century** Semester course; 3 lecture hours. 3 credits. Conducted in German. • A course covering the period of romanticism, **Biedermeier** and **junges Deutschland**.

**German 354 Literature of the Late 19th Century** Semester course; 3 lecture hours. 3 credits. Conducted in German. • A course covering the periods of realism and naturalism.

**German 355 Literature of the Early 20th Century** Semester course; 3 lecture hours. 3 credits. Conducted in German. • A course dealing with the major authors of the periods of impressionism, expressionism, and **neue Sachlichkeit** during the first half of the 20th century.

**German 356 Modern Literature** Semester course; 3 lecture hours. 3 credits. Conducted in German. • A course dealing with the literature of the post-war period leading up to the present.

## COURSES IN HISTORY

**History 101, 102 History of Civilization** Semester courses; 3 lecture hours. 3, 3 credits. • A survey of the political, social, economic, cultural, and religious elements of world history from earliest man to the present time. First semester: pre-literary history to 1648. Second semester: 1648 to the present.

**History 103, 104 History of Modern Europe** Semester courses; 3 lecture hours. 3, 3 credits. • An introduction to the political, economic, social, and intellectual history of Europe in its world setting from the Renaissance to the present. First semester: 1500-1815. Second semester: 1815 to the present.

**NOTE: History 101, 102 or History 103, 104 are prerequisite to all advanced courses in European, African, and Far Eastern history. Degree credit, however, will not be granted for both 101, 102 and 103, 104. History 201, 202 is a prerequisite for all advanced courses in American history. In exceptional cases, permission of the instructor will be accepted in lieu of the prerequisites.**

**History 201, 202 American History** Semester courses; 3 lecture hours. 3, 3 credits. • A general introduction to the history and civilization of the United States from the Age of Discovery to the present, with emphasis on the forces and processes that were major influences in the development of American institutions and ideas. First semester: through 1865. Second semester: 1865 to the present.

**History 301, 302 The Ancient World** Semester courses; 3 lecture hours. 3, 3 credits. • The ancient world from pre-historic times to the decline of

**Rome.** First semester: Ancient Greece to the breakup of Alexander's Empire. Second semester: Hellenistic world and Rome through the dissolution of the Roman Empire of the west.

**History 303, 304 The Middle Ages** Semester courses; 3 lecture hours. 3, 3 credits. • A history of the political, social, economic, religious, and cultural history of the European and Mediterranean communities from the decline of the Roman Empire to Renaissance times. First semester: The breakup of the Graeco-Roman civilization to the Crusades. Second semester: The high middle ages to the disintegration of medieval society.

**History 305 The Renaissance** First semester; 3 lecture hours. 3 credits. • A history of the secularization of life, thought, and culture occurring in western Europe between the 14th and 16th centuries.

**History 306 The Reformation** Second semester; 3 lecture hours. 3 credits. • A study of the material and spiritual forces of the 16th and early 17th centuries involved in the cause, course, and consequences of the great upheaval that broke the unity of medieval Christendom.

**History 307-308 The Ancient Near East** Continuous course; 3 lecture hours. 3, 3 credits. Prerequisite: 6 hours in history or consent of the instructor. • A study of the ancient near Eastern civilizations of Mesopotamia, Egypt, Anatolia, and Syria-Palestine, from the preliterate period to that of the Achaemenid Empire of the Persians. First semester: Pre-literate period to the end of Kassite rule in Babylonia (c. -1160 B.C.). Second semester: The rise and fall of the great Neo-Assyrian, Neo-Babylonian, Hebrew, and Persian Empires (c. -331 B.C.).

**History 309, 310 History of England** Semester courses; 3 lecture hours. 3, 3 credits. • The origin, rise, and growth of Britain. Emphasis upon the development of English political ideas and institutions, and the significance of Britain in world affairs. First semester: Earliest records to the Restoration. Second semester: The Restoration to the present.

**History 311, 312 History of Russia** Semester courses; 3 lecture hours. 3, 3 credits. • Russian history from the beginning of the Christian era to the present. Emphasis will be placed on the Bolshevik revolution of 1917 and the development of Soviet Communism.

**History 315, 316 History of the South** Semester courses; 3 lecture hours. 3, 3 credits. • A regional history placing particular emphasis upon the distinctive culture and problems of the South and of its significance in the history of the United States. First semester: Old South, from Colonial period to 1861. Second semester: New South, from 1865 to the present.

**History 317 History of China** Semester course; 3 credits. • The development of cultural and political institutions from ancient China to modern times, with emphasis upon development of cultural and political institutions.

**History 319 Economic History of the United States** Semester course; 3 lecture hours. 3 credits. • A study of the American economic development from colonial beginnings to the present, treating such topics as agriculture, industry, commerce, finance, economic causes, and effects of wars, inter-

relationships of government and business, role of the entrepreneur, and the economic basis of cultural progress.

**History 321 The American Revolution** First semester; 3 lecture hours. 3 credits. • A study of the economic, intellectual, institutional, and constitutional changes in British North America which culminated in the American Revolution.

**History 323 History of the American Frontier** First semester; 3 lecture hours. 3 credits. • A survey of the western movement in the United States from the time the first outposts were established to the end of the frontier in the 19th century. Particular attention to the influence of the frontier upon the American mind and ideals.

**History 326 The Early National Period, 1783-1801** Second semester: 3 lecture hours. 3 credits. • A study of the Confederation and Federalist periods in the United States with emphasis on the formation of the Constitution and the political, economic, and cultural institutions of the American nation.

**History 327 History of India** Semester course; 3 lecture hours. 3 credits. • This course will cover the early history, Hindu and Muslim periods, Gandhi and independence, the partition of India, Nehru's era, and present-day India. The impact of the foreign invasions, including the threat from Red China and India's outlook and its future in the present-day world.

**History 329, 330 History and Culture of the Orient** Semester courses; 3 lecture hours. 3, 3 credits. • The development of the civilizations of India, China, and Japan, their influences, the transformation of the Far East under the influence of Western imperialism and industrialism, the modern Orient, including the impact of the world wars and revolutions. First semester: To 1853. Second semester: To the present.

**History 331 Europe, 1648-1815** First semester; 3 lecture hours. 3 credits. • A study of Europe from the Treaty of Westphalia to the Congress of Vienna, with emphasis upon the Old Regime in France, the French Revolution, and the Napoleonic Era.

**History 332 Europe, 1815-1914** Semester course; 3 lecture hours. 3 credits. • A study of Europe after Vienna with emphasis upon the development of liberalism and nationalism, the rise of fascism and communism, and the diplomatic background to World War I.

**History 333 History of Japan to the 19th Century** Semester course; 3 lecture hours. 3 credits. • An introduction to the development of Japanese culture: its social, religious, and economic aspects from earliest times to the 19th century.

**History 334 History of Modern Japan** Semester course; 3 lecture hours. 3 credits. • Political and social development of Japan in the 19th and 20th centuries, with special emphasis on Japan's response to Western pressures and her rise to world power.

**History 336 Europe Since 1914** Semester courses; 3 lecture hours. 3 credits. • A historical survey of contemporary Europe from the First World War

through the Second World War to the Cold War with an emphasis on social and political relationship and origin of ideology.

**History 337, 338 History of Islam** Semester course; 3 lecture hours. 3, 3 credits. • First semester: History of Islam from its beginning to 1453. Second semester: From 1453 to the present.

**History 339, 340 The British Empire and Commonwealth** Semester courses; 3 lecture hours. 3, 3 credits. • A study of British expansion with particular reference to the origins and development of the British Empire and the Commonwealth of Nations. First semester: To 1783. Second semester: Since 1783.

**History 341 European Diplomatic History, 1815-1960** Semester course; 3 lecture hours. 3 credits. • A historical examination of the foreign policies of the major European nations with emphasis on the diplomatic settlements which have affected major alterations in world power relationships. Full consideration will be given to economic and social forces, both European and global, underlying those changes.

**History 343, 344 Virginia History** Semester courses; 3 lecture hours. 3, 3 credits. • A study of the political, economic, and cultural developments in the colony and Commonwealth of Virginia. First semester: Elizabethan period to 1789. Second semester: 1789 to the present.

**History 346 Colonial America, 1607-1787** Semester course; 3 lecture hours. 3 credits. • An examination of the colonial origins of American institutional development including relevant European influences, political and constitutional evolution, and cultural and economic aspects of early American life.

**History 401, 402 History of Latin America** Semester courses; 3 lecture hours. 3, 3 credits. • A survey of Latin American history from pre-Columbian times to the present, covering political, economic, and cultural development, with emphasis upon relations of the Latin American republics with the United States. First semester: To 1825. Second semester: Since 1825.

**History 403, 404 Civil War and Reconstruction** Semester courses; 3 lecture hours. 3, 3 credits. • A history of events leading up to the outbreak of hostilities. First semester: The major campaigns and conditions on the home front. Second semester: A presentation of Appomattox and the Reconstruction era following the surrender in 1865.

**History 405, 406 Diplomatic History of the United States** Semester courses; 3 lecture hours. 3, 3 credits. • A historical study of diplomatic negotiations and foreign relations of the United States, with emphasis on the background of diplomatic disputes and the factors leading to their settlement. First semester: To 1877. Second semester: Since 1877.

**History 407 Tudor and Stuart England** Semester course; 3 lecture hours. 3 credits. • An interpretive study of the development of early modern England from 1485 to 1714 with emphasis on political, economic, and social history.

**History 409 Survey of the History and Culture of Africa** Semester course; 3 lecture hours. 3 credits. • To cover the early history, colonial period, emerging nations, and leaders of Africa south of the Sahara. Emphasis will be upon economic and political developments, peoples and cultures, and will include consideration of the traditional and contemporary philosophy, religion, literature, and arts.

**History 410 Americans from Africa: A History** Semester course; 3 lecture hours. 3 credits. • A survey of the history and contributions of Negro Americans from the African background to the present time. This course has been designed to be offered through a series of television lectures with seminars held on campus and other points. (Offered through the Evening College only.)

**History 411, 412 History of Africa** Semester courses; 3 lecture hours. 3, 3 credits. • First semester: A history of Africa from pre historic times through World War II. Second semester: From 1945 to the present, stressing the emergence of the African nations.

**History 413 History of Brazil** First semester; 3 lecture hours. 3 credits. • A survey of the development of Brazilian culture and institutions from the Portuguese occupation of eastern South America through the colonial period, independent empire, and the republic to the present time.

**History 414 History of Mexico** Second semester; 3 lecture hours. 3 credits. • The development of the culture and social structure of the Mexican people and nation since the days of the Aztecs. Particular attention will be given to social and cultural matters and to the more recent period.

**History 417 The Gilded Age and Progressivism** Semester course; 3 lecture hours. 3 credits. • The history of the United States during the period 1877-1917, with emphasis on industry, labor, agrarian movements, imperialism, and reform.

**History 418 The United States in the 20th Century** Second semester; 3 lecture hours. 3 credits. • This course offers a study of the United States from 1900 to the present, with an analysis of the effect of domestic and foreign policies on the political, socio-economic, and cultural development of the nation.

**History 421, 422 Cultural and Intellectual History of the United States** Semester courses; 3 lecture hours. 3, 3 credits. • The development of American life and thought, with emphasis on trends in social and religious ideas, patterns of living, and expressions in literature and the arts. First semester: Colonial period to 1865. Second semester: 1865 to the present.

**History 425, 426 Constitutional History of the United States** Semester courses; 3 lecture hours. 3, 3 credits. • An analysis of the development of the American constitutional system and constitutional thought, emphasizing English background, problems of government organization, judicial review, the controversy over state sovereignty, significant interpretative problems, and the recently changing role of government in America.

**History 431, 432 Senior Seminar in American Historiography and Interpretation** Semester courses; 3 lecture hours. 3, 3 credits. • An introduction

to questions in historiography, meaning, methodology, and interpretation in the teaching and writing of American history. First semester: An examination of the nature of the historical discipline. Second semester: An introduction to the variety of interpretations of problems in American history.

**History 441, 442 Senior Seminar in European Historiography and Interpretation** Semester courses; 3 lecture hours. 3, 3 credits. • An introduction to questions of historiography, meaning, method, and interpretation in the teaching and writing of European history. First semester: An examination of the nature of the historical discipline. Second semester: An introduction to the variety of interpretations of the problems of European history from Herodotus to Toynbee.

**History 450, 451 Topics in History.** Semester courses; 2, 3, or 4 hours credit. (To be determined at the time of registration, with a maximum of 6 hours credit for both semesters.) • An independent study course to allow interested students to do research, under the direction of a professor qualified in that field, in an area of major interest. Results of that research may be presented in the form of a written report or an oral examination, at the discretion of the directing professor.

## COURSES IN JOURNALISM

**Journalism 101 Mass Communications** First semester; 3 lecture hours. 3 credits. • The influence of, and techniques used by, mass media. Origin of newspapers and periodicals and their evolution to mass circulation journalism of today. Structure, organization, management, content, and operation of radio, television, and motion picture industries. Attention is paid to roles of advertising and public relations.

**Journalism 203 News Reporting** Second semester; 3 lecture hours. 3 credits. • Study of the techniques of news reporting on small daily, large daily, and weekly newspapers.

**Journalism 301-302 Basic Photo-Journalism** Continuous course; 2 lecture and 2 laboratory hours. 3-3 credits. • Study of fundamentals of photography and techniques of camera use in relation to the fields of journalism and visual communications. (Same as Photography 301-302.)

**Journalism 303-304 Advanced Reporting** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: Journalism 203. • Detailed study of the techniques of securing news as well as the sources of news in the fields of public interest and of judgment in the style of news writing. Emphasis is placed on developing clarity and maturity in the student's writing. Practical exercises and assignments to cover actual news situations are a part of this course.

**Journalism 305 Copy Editing** First semester; 1 lecture hour and 3 laboratory hours. 3 credits. Prerequisite: Journalism 203-204. • Actual practice in copyreading and editing telegraphy copy, a study of copyreading symbols and practices; including a survey of the make-up and design of leading American dailies.



**Journalism 306 Newspaper Make-up** Second semester; 1 lecture hour and 3 laboratory hours. 3 credits. Prerequisite: Journalism 203-204.

**Journalism 308 Communications Law** Second semester; 3 lecture hours. 3 credits. • Study of legal limitations affecting publishing, advertising, broadcasting, telecasting, and legal philosophy relating to the media of communications.

**Journalism 309 Magazine Editing and Materials Preparation** First semester; 3 lecture hours. 3 credits. • Study of preparation of copy and illustrative materials for periodical publication. Attention given to industrial, agricultural, business, professional, and denominational periodicals.

**Journalism 310 Feature and Article Writing** Second semester; 3 lecture hours. 3 credits. • Practice in preparing articles and features for newspapers and magazines. The emphasis is on creative journalistic writing and development of writing skills.

**Journalism 313, 314, 413, 414 Commonwealth Times Laboratory** Semester courses; 4 laboratory hours. 2, 2, 2, 2 credits. • Required for all majors unless excused by department head, these courses provide the student with practical experience through work on the school newspaper. Techniques of reporting and writing news stories, editing, copyreading, and make-up are employed and serve to integrate the entire program of study.

**Journalism 315 Publicity** First semester; 3 lecture hours. 3 credits. • How to plan, produce, and place publicity copy for various organizations and clients.

**Journalism 321-322 Advanced Photo-Journalism** Continuous course; 2 lecture and 2 laboratory hours. 3-3 credits. Prerequisites: Journalism 301-302 or evaluation of portfolio. • Advanced photographic techniques with emphasis on problems of photographing people in their environment and events as they occur. Second semester's work will emphasize student's planning and executing his own picture stories while concerning himself with continuity and emotional appeal of the photograph. Student must provide film and enlarging paper. (Same as Photography 321-322.)

**Journalism 407 Newspaper Management** First semester; 3 lecture hours. 3 credits. • Newspaper operations from the standpoint of business and editorial supervision. A study of newspaper plants, advertising, circulation, and business.

**Journalism 411, 412 Field Work** Semester courses; 4 laboratory hours. 3, 3 credits. • Student works in the field under close supervision of instructor and work supervisor, the latter grading the students on various phases of his on-the-job employment and submitting these reports to the student's adviser. Selected students will take part in departmental programs of communications internships in which they will be enabled to gain practical experience by working with area newspapers, public relations offices, and radio and television stations.

**Journalism 415 Public Relations** Second semester; 3 lecture hours. 3 credits. • Study of public relations principles and practices, with special attention to tools, media, responsibilities, and potentialities.

**Journalism 417 Radio and Television News Writing** First semester; 3 lecture hours. 3 credits. Prerequisite: Journalism 203-204. • Preparation of news copy for dissemination by radio and television. Interview; use of audio tape; on-the-spot reporting of events.

### COURSES IN LATIN

**Latin 101-102 Elementary Latin** Year course; 3 lecture hours. 6 credits. • A study of the structure of the language. Vocabulary building. Reading and pronunciation. Translation from **Caesar's De Bello Gallico**. Study of related aspects of Roman civilization. Students entering with more than one high school unit in Latin will not receive credit for this course.

**Latin 201-202 Intermediate Latin** Year course; 3 lecture hours. 6 credits. • Review of grammar. Readings from Cicero. Selected books of Vergil's **Aeneid**. Related study of Roman history and institutions. Students entering with more than two high school units in Latin will not receive credit for this course.

### COURSES IN MATHEMATICS

**Mathematics 001 Intermediate Mathematics** First semester; 3 lecture hours. No credit. Prerequisite: One year high school algebra, plane geometry. • Review of high school algebra with a modern approach for those students who have not studied mathematics for several years and for those who do not make a satisfactory score on the algebra placement test.

**Mathematics 102 Trigonometry** Both semesters; 3 lecture hours. 3 credits. Prerequisites: High school plane geometry and Mathematics 103 or equivalent. • Functions of angles, the solution of right and oblique plane triangles and trigonometric equations, identities. Logarithms. (Credit cannot be received for both Mathematics 102 and 104.)

**Mathematics 103-104 Freshman Mathematics** Continuous course; 3 lecture hours. 3-3 credits. Prerequisites: Two years of algebra and plane geometry, and satisfactory score on placement test. • Introduction to sets and logic, development of the real number system and its algebra; solutions of equations and inequalities, and systems thereof. Relations and functions—polynomial, exponential, logarithmic, and trigonometric—with emphasis on their interrelationships.

**Mathematics 105-106 Basic Mathematics** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: One year of high school algebra. • Modern concepts of mathematics, history and development of number systems, arithmetic and algebra from the teacher's point of view. (Not open for credit to students who have passed Mathematics 103. No placement test required.)

**Mathematics 107 Algebra and Trigonometry** First semester; 3 lecture hours. 3 credits. Prerequisites: High school trigonometry and satisfactory placement test score. • An accelerated course combining algebra and trigonometry.

**Mathematics 200-201-202 Calculus with Analytic Geometry** Continuous course; 4-4-3 lecture hours. 4-4-3 credits. Prerequisite: Mathematics 107 or Mathematics 103-104. • Limits, continuity, derivatives, differentials, anti-derivatives, and definite integrals. Applications of differentiation and integration. Selected topics in analytic geometry. Partial differentiation, multiple integration, and infinite series.

**Mathematics 213 Introduction to Statistics** Semester course; 3 lecture hours. 3 credits. Prerequisite: Mathematics 103 or equivalent. • Elementary probability, organization and analysis of data, combinational analysis, binomial distribution, random sampling, testing hypotheses, non-parametric statistics, regression and correlation, analysis of variance. (Not open to students in mathematics.)

**Mathematics 300 Sets, Logic, and the Real Number System** Semester course; 3 lecture hours. 3 credits. Prerequisite: Mathematics 200. • An introduction to the basic concepts of set theory and logic, culminating in a rigorous construction of the real number system.

**Mathematics 301 Differential Equations** 3 lecture hours. 3 credits. Prerequisite: Mathematics 201-202. • Solution of ordinary differential equations of first order. Linear differential equations with constant coefficients using operator methods. Series solutions and applications.

**Mathematics 305 Elementary Number Theory** Semester course; 3 lecture hours. 3 credits. Prerequisite: Mathematics 300. • Divisibility, congruences, Euler phi-function, Fermat's theorem, primitive roots, Diophantine equations.

**Mathematics 307 Fortran Computer Programming** Semester course; 3 lecture hours. 3 credits. Prerequisite: Mathematics 107 or 104. • Programming of mathematical and non-mathematical problems. Programs written by students will be processed by a modern computer.

**Mathematics 308 Numerical Analysis** Semester course; 3 lecture hours. 3 credits. Prerequisites: Mathematics 202 and Mathematics 307. • Theory and Fortran IV programming of iterative numerical methods for computer solution of simultaneous, nonlinear, and differential equations. Applications to interpolation, error analysis, matrices, numerical integration, and boundary-value problems.

**Mathematics 309 Introduction to Probability Theory** Semester course; 3 lecture hours. 3 credits. Prerequisite: Mathematics 200. • A study of the mathematical theory of probability and applications of probability to statistical theory, including finite and infinite sample spaces, random variables, discrete and continuous distributions, mathematical expectation, functions of random variables, sampling distributions.

**Mathematics 310 Linear Algebra** Semester course; 3 lecture hours. 3 credits. Prerequisite: Mathematics 201. • Systems of linear equations, vector spaces, linear dependence, bases, dimension linear mappings, matrices, determinants, quadratic forms, orthogonal reduction to diagonal form, eigenvalues, geometric applications.

**Mathematics 311 Vector Analysis** 3 lecture hours. 3 credits. Prerequisite: Mathematics 202 (Mathematics 310 strongly recommended). • Topics

from the algebra and calculus of vectors, including addition and products of vectors, derivations of vector functions, divergence and curl, integrals of vector functions.

**Mathematics 313-314 Statistical Methods** Continuous course; 2 lecture hours and 1 laboratory hour. 3-3 credits. Prerequisite: Mathematics 107 or equivalent. • An introduction to basic statistical methods, including the concepts of probability, sampling, distributions, estimation, hypothesis-testing, analysis of variance, covariance, regression, and correlation. Other topics include non-parametric statistics and sequential analysis.

**Mathematics 401-402 Algebraic Structures** Continuous course; 3 lecture hours. 3-3 credits. Prerequisites: Mathematics 300 and Mathematics 310. • A study of algebraic structure: groups, rings, fields, and vector spaces. Homomorphisms and isomorphisms.

**Mathematics 405-406 Modern Geometry** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: Mathematics 201-202. • Elements of non-Euclidean and of synthetic projective geometries. Introduction to topology.

**Mathematics 407-408 Advanced Calculus** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: Mathematics 202, 300, 310, or consent of instructor. • Theoretical aspects of the calculus: sequences, limits, continuity, infinite series, series of functions, integration, differential geometry.

**Mathematics 409 Introduction to Topology** Semester course; 3 lecture hours. 3 credits. Prerequisite: Mathematics 300 or equivalent. • Foundations and fundamental concepts of point-set topology. Topological spaces, metric spaces, continuous mappings, homeomorphism, arcs, curves, and cells.

**Mathematics 411 Theory of Matrices and Determinants** Second semester; 3 lecture hours. 3 credits. Prerequisite: Mathematics 301. • The basic theory of matrices and determinants with applications, including evaluation of determinants, matrices over real and complex fields, transformations and canonical forms, orthogonal and Hermitian matrices, solutions of linear and quadratic equations, eigenvalues and invariants, solutions of differential equations, and matrix polynomials.

**Mathematics 412 Introduction to Complex Analysis** Semester course; 3 lecture hours. 3 credits. Prerequisite: Mathematics 407 or 311. • The algebra and geometry of complex numbers, analytic functions, integration, series, contour integration, analytic continuation, conformal mapping.

**Mathematics 413-414 Mathematical Statistics** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: Mathematics 202. • Probability, discrete and continuous distributions, moment generating functions, limit theorems, estimation, decision theory and testing hypotheses, relationships in a set of random variables, linear models, and design.

**Mathematics 417-418 Methods of Applied Mathematics** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: Mathematics 301. • Vector analysis, matrices, complex analysis, special functions, Legendre and

Hermite polynomials, Fourier series, Laplace transforms, integral equations, partial differential equations, boundary-value, and initial value problems.

**Mathematics 491-492 Independent Study** Either semester; 2-3-4 credits with a maximum total of 6 credits. Prerequisites: Junior or senior standing as a mathematics (or related science) major and approval of the supervising faculty member. • The student will submit a proposal for investigating some area or problem not contained in the regular curriculum. Approval by the departmental chairman is required. The results of the student's study will be presented in a report, and he will be given an oral examination by a committee of three faculty members.

## COURSES IN PHILOSOPHY

**Philosophy 101-102 Introduction to Philosophy** Continuous course; 3 lecture hours. 3-3 credits. • An introduction to the main branches and problems of philosophy. The first semester will emphasize logic, ethics, and cosmology. Works of significant philosophers will be read.

**Philosophy 201-202 History of Philosophy** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: Sophomore standing. • A survey of the development of critical and speculative thought in the West from ancient beginnings to the present.

**Philosophy 221 Informal Logic** Semester course; 3 lecture hours. 3 credits. Prerequisite: Consent of instructor. • The nature of sound reasoning, including a study of informal fallacies, stereotypic thinking, prejudices, the nature and function of language, definition and classification, and elementary scientific reasoning. Practical applications will be stressed, drawing upon contemporary materials.

**Philosophy 222 Formal Logic** Semester course; 3 lecture hours. 3 credits. Prerequisite: Consent of instructor. • Introduction of formal deductive logic, including both the traditional theory of the syllogism and the basics of modern symbolic logic.

**Philosophy 311 American Pragmatism** Semester course; 3 lecture hours. 3 credits. Prerequisite: Consent of instructor. • A critical examination of the major writings of C. S. Pierce, William James, and John Dewey.

**Philosophy 319 Contemporary Philosophy** Semester course; 3 lecture hours. 3 credits. Prerequisite: Six hours in philosophy or consent of instructor. • A study of the philosophical thought of the 20th century, concentrating on the analytic movement characteristic of Anglo-American philosophy and significant individual thinkers who stand outside this movement. Includes readings from Moore, Russell, Wittgenstein, the logical positivists, ordinary language philosophers, Quine, Whitehead, Bergson, and Maritain.

**Philosophy 321, 322 Aesthetics** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: Sophomore standing. • A study of aesthetic experience, the concept of art, the sensuous, structural, and expressive aspects of arts of form, and the philosophical problems involved in aesthetic judgment. The second semester is devoted to the application of aesthetic theory to specific arts: the dance, architecture, painting, sculpture, music, poetry, etc.

**Philosophy 323 Epistemology** Semester course; 3 lecture hours. 3 credits. Prerequisite: Six hours in philosophy or written consent of instructor. • An examination of the problems of knowledge, including theories of truth, knowledge of the external world and other minds, and the distinctions between knowledge and belief.

**Philosophy 326 Existentialism** Semester course; 3 lecture hours. 3 credits. Prerequisite: Philosophy 101-102 or consent of instructor. • An examination of the nature of truth, freedom, responsibility, individuality, and interpersonal relations as found in some principal writings of Kierkegaard, Nietzsche, Jaspers, Sartre, Heidegger, Camus, Buber, and Marcel.

**Philosophy 327 Ethics** Semester course; 3 lecture hours. 3 credits. Prerequisite: Philosophy 201-202 or consent of instructor. • A study of man's ethical concepts and conduct. Socrates, Plato, Aristotle, Epicureanism, Stoicism, early Christianity, the Middle Ages, and contemporary views will be considered.

**Philosophy 329 Business Ethics** Semester course; 3 lecture hours. 3 credits. Prerequisite: Consent of instructor. • A survey of the major ethical theories as they apply to business practices, including such topics as relationship of firms and employees, firms and other economic agents, firms and non-business groups, etc.

**Philosophy 430 Philosophy of Religion** Semester course; 3 lecture hours. 3 credits. Prerequisite: Philosophy 101-102, or 201-202, or consent of instructor. • An introduction to the major problems and questions of religion and reason. Special reference will be made to the nature of God, the nature of man, the problem of evil, the source of good, immortality, and the basis of authority.

**Philosophy 490 Topical Seminar** Semester course; 3 lecture hours. 3 credits. Prerequisite: Written consent of instructor. • May be repeated once. An in-depth study of an individual philosopher, a particular philosophical problem, or a narrowly defined period or school.

## COURSES IN PHYSICS

**Physics R103 Introductory Physics for Radiology** Second semester; 3 lecture hours. 3 credits. • Properties of matter and basic principles of mechanics, electricity, and magnetism. (For radiologic technology students only.)

**Physics 105-106 General Physics** Year course; 3 lecture and 3 laboratory hours each semester. 8 credits. Corequisite: Mathematics 103-104. • First semester: Basic concepts of motion, force, energy, matter, waves, and heat. Second semester: Basic concepts of electricity, magnetism, light, and modern physics. A terminal course not accepted as a prerequisite for advanced physics courses.

**Physics 207 University Physics I** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Corequisite: Mathematics 200. • A vector- and calculus-based introduction to the fundamental concepts of mechanics and heat.

**Physics 208 University Physics II** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisites: Physics 207 and Mathematics 200. • A vector- and calculus-based introduction to the fundamentals of waves, electricity, and magnetism.

**Physics 301 Electricity and Magnetism** Semester course; 3 lecture hours. 3 credits. Prerequisites: Physics 208 and Mathematics 201. • Electric fields and potential, dc and ac circuits, electromagnetic induction, resistance, capacitance, inductance, electric and magnetic properties of matter.

**Physics 304 Classical Mechanics** Semester course; 3 lecture hours. 3 credits. Prerequisites: Physics 207 and Mathematics 201. • Study of kinematics, statics, dynamics of particles and rigid bodies, wave motion.

**Physics 305 Electronics** Semester course; 3 lecture hours. 3 credits. Prerequisites: Physics 207-208 and Mathematics 201. • A study of vacuum tube and semiconductor circuits.

**Physics 307 University Physics III** Semester course; 3 lecture hours. 3 credits. Prerequisite: Physics 208 and Mathematics 200. • An introduction to optics and modern physics.

**Physics 308 Thermodynamics** Semester course; 3 lecture hours. 3 credits. Prerequisites: Physics 207 and Mathematics 201. • The laws of thermodynamics and their application to the fundamental concepts of physics.

**Physics 311, 312 Intermediate Physics Laboratory** Semester course; 6 laboratory hours. 2 credits each semester. Corequisite: Enrollment in physics course above 300.

**Physics 402 Introduction to Quantum Mechanics** Semester course; 3 lecture hours. 3 credits. Prerequisite: Physics 304 and Mathematics 301 or consent of instructor. • An introduction to quantum mechanics through Schrodinger's equation and its solution for simple systems, including the hydrogen atom, expectation values and eigenvalue equations, angular momentum operators, and matrix representation.

**Physics 404 Atomic and Nuclear Physics** Semester course; 3 lecture hours. 3 credits. Prerequisites: Physics 402 and Mathematics 301. • Atomic structure, one- and multi-electron systems, x-rays, nuclear structure and decay processes, and elementary particles.

**Physics 406 Optics** Semester course; 3 lecture hours. 3 credits. Prerequisite: Physics 203-204 or 205-206. • The study of geometrical and physical optics, including thin and thick lenses, interference, diffraction, and polarization phenomenon.

**Physics 407 Theoretical Mechanics** Semester course; 3 lecture hours. 3 credits. Prerequisites: Physics 304 and Mathematics 301. • An introduction to advanced dynamics involving the Lagrangian and Hamiltonian canonical equations.

**Physics 408 Electromagnetic Theory** Semester course; 3 lecture hours. 3 credits. Prerequisites: Physics 301 and Mathematics 301. • Electric and

magnetic fields and potentials, electromagnetic induction, Maxwell's equations, electromagnetic waves.

**Physics 411, 412 Advanced Physics Laboratory Semester course; 3 laboratory hours. 1 credit each semester. Prerequisite: Physics 311.**

## COURSES IN PHYSICAL SCIENCE

**Physical Science 201 Elementary Astronomy Semester course; 3 lecture hours. 3 credits.** • A descriptive approach to astronomy dealing with basic features of our solar system, our galaxy, and the universe.

**Physical Science 206 Survey of Physical Science Semester course; 3 lecture hours. 3 credits.** • Selected topics from physical science with demonstrations and discussions of the methods of classroom presentation. Terminal course for teachers.

**Physical Science 307 Introduction to Material Science Semester course; 3 lecture hours. 3 credits.** Prerequisites: General Chemistry and General Physics • A basic course in the relation of physical and mechanical properties of materials to their structure and environment. Includes introductions to crystallography, physical metallurgy, and ceramics with emphasis on materials in industrial applications.

**Physical Science 308 Physical Metallurgy Semester course; 3 lecture hours. 3 credits.** Prerequisite: Physical Science 307. • A course in principles of physical metallurgy investigating the origins of the structure and physical properties of metals and alloys. Contents include the metallic state, equilibrium diagrams, diffusion defects, physical properties, elastic and plastic deformations, and mechanical properties.

## COURSES IN POLITICAL SCIENCE

**Political Science 201, 202 American Government Semester courses; 3 lecture hours. 3, 3 credits.** • A study of the American system of government, including the organization and functioning of national, state, and local government in the United States. First semester: Essentials of American Government; Federal institutions. Second semester: Federal powers and functions; state and local governments.

**Political Science 301 American Parties and Politics First semester; 3 lecture hours. 3 credits.** • A study of the historical development, organization, and methods of political parties in the United States.

**Political Science 305, 306 History of Political Thought Semester course; 3 lecture hours. 3, 3 credits.** • A survey of political thought from the time of Plato to the present. First semester: Leading political ideas of the ancient and medieval periods. Second semester: Modern and contemporary thought.

**Political Science 307 International Organizations and Institutions Semester course; 3 lecture hours. 3 credits.** • The structure and operation of such organizations and regional institutions as the United Nations, the European Economic Community, the Organization for Economic Cooperation and De-



velopment, the Organization of American States, the Central American Common Market, the Latin American Free Trade Association, the North Atlantic Treaty Organization, and the Southeast Asia Treaty Organization.

**Political Science 314 American Constitutional Law** Semester course; 3 lecture hours. 3 credits. • A survey of the development of the Constitution through judicial interpretation. Supreme Court decisions dealing with federalism, the powers of Congress and the President, civil liberties, and civil rights will be analyzed.

**Political Science 315 Communism: Theory and Practice** Second semester; 3 lecture hours. 3 credits. • A study of the growth of communism and its approach to economic and social problems. A critical analysis will be given to the use of this theory and practice for world domination.

**Political Science 321 Municipal Government and Administration** First semester; 3 lecture hours. 3 credits. • A study of the development, organization, and administration of cities in the United States. Special attention will be given to the problems and prospects of municipal government in Richmond and Virginia.

**Political Science 322 State and Local Government in the United States** Second semester; 3 lecture hours. 3 credits. • A study of the organization, problems, and politics of government and administration of the 50 states and their cities, counties, towns, and metropolitan areas, with special emphasis on the Virginia state and local government experience.

**Political Science 324 Public Personnel Administration** Semester course; 3 lecture hours. 3 credits. • An analysis of personnel management in government. Recruitment and selection, job and salary classification, work standards and training, and relations of public personnel to the executive and legislative branches of government will be included among the topics to be discussed.

**Political Science 326 Contemporary Urban Problems** Semester course; 3 lecture hours. 3 credits. • A study of urban affairs with particular reference to complex urban problems. An inventory will be made of contemporary urban problems and of devices for dealing effectively with them. Special attention will be given to new concepts, such as multi-jurisdictional planning.

**Political Science 327 Seminar in Urban Problems and Solutions.** Semester course; 3 lecture hours. 3 credits. Prerequisite: Political Science 326 and/or consent of the instructor. • A continuation of Political Science 326 with emphasis upon possible solutions to the problems of urban communities.

**Political Science 330 Water Resources Problems** Semester course; 3 lecture hours. 3 credits. • A review of the general technical and philosophical factors involved in the regulation of the quantity and quality of water with special reference to the evaluation of problems in the James River Basin.

**Political Science 351 Government and Politics of Southeast Asia** Semester course; 3 lecture hours. 3 credits. • A survey of the political problems growing out of colonialism, underdevelopment, nationalism, and big power struggles.

**Political Science 402 Public Administration** Second semester; 3 lecture hours. 3 credits. • A study of the concepts and practices of public administration in the United States. Particular attention will be given to the administrative procedures and practices of the national government and the government of Virginia.

**Political Science 403 Principles and Practices of International Relations** Semester course; 3 lecture hours. 3 credits. • A survey of world affairs with particular attention to economic resources, political diplomacy, power politics, and other tools of international relations.

**Political Science 411, 412 Comparative Government** Semester courses; 3 lecture hours. 3, 3 credits. • A comparative study of contemporary political systems, including some of the advanced democracies and emerging new nations. Emphasis will be given to patterns of political stability and adaptation to cultural, social, and economic change. First semester: A comparative study of the parallel development of parliamentary institutions in England, France, and Germany. Second semester: Political institutions in Indonesia, Malaysia, and the Philippines.

**Political Science 413 International Relations: 1870-1914** Semester course; 3 lecture hours. 3 credits. • A study of international relations from the time of the unification of Germany and Italy to the outbreak of World War I. Full consideration will be given to international economics and colonial affairs.

**Political Science 452 Legal Rights and Responsibilities** Semester course; 3 lecture hours. 3 credits. • A general survey of the most common legal problems facing the average citizen to aid in understanding basic fundamentals of law affecting private activities. Content to be designed to meet the interests of the class and cover such topics as wills, personal liability, real property law, and legal protection of ideas, writings, and art.

## COURSES IN PSYCHOLOGY

**Psychology 201-202 General Psychology** Year course; 3 lecture hours per semester. 6 credits. A prerequisite for upper-level work in the field of psychology. • Basic principles of psychology; its methods and its laws; scientific study of sensation, perception, motivation, emotion, learning, and thinking; personality patterns and individual differences.

**Psychology 207 Improvement of Reading Efficiency** Semester course; 1 lecture hour and 2 laboratory hours. 2 credits. • A thorough, practical course designed for adults who realize that the ability to read rapidly and comprehend accurately is important for success in many modern occupations. Reading difficulties are diagnosed, and a program developing improved reading habits is outlined for each student for increasing reading speed, improving comprehension, or improving study skills, according to results of diagnosis. Measurement of gains will be made from time to time during the course. Enrollment limited to 20 in each section.

**Psychology 211 Introduction to Statistics** First semester; 2 lecture and 2 laboratory hours. 3 credits. • Frequency distributions, measures of central

tendency and variability; sampling, probability, correlation, and significance tests as applied to psychological data.

**Psychology 201 is a prerequisite for the following courses**

**Psychology 301 Child Psychology** First semester; 3 lecture hours. 3 credits. • A study is made of the growth and development of the child until puberty. Child-life is viewed in terms of physical, mental, social, emotional, and educational factors.

**Psychology 302 Psychology of Adolescence** Second semester; 3 lecture hours. 3 credits. • A study of mental, moral, social, and physical development from puberty to maturity viewed as in child psychology. Designed for secondary school teachers, youth leaders, and professional psychologists.

**Psychology 303 Mental Hygiene** Both semesters; 2 lecture hours. 3 credits. • A survey of those factors which facilitate the efficient and happy functioning of the individual. Pathological factors will be studied to some extent, in an effort to point ways of avoiding them.

**Psychology 304 Developmental Psychology** Second semester; 3 lecture hours. 3 credits. • A survey course covering the year from birth through adolescence. For students not majoring in psychology. Concerned primarily with the effects of inheritance and environment on the normal maturation and development of mental, physical, and emotional characteristics.

**Psychology 305 Educational Psychology** Both semesters; 3 lecture hours. 3 credits. • This course presents modern psychological methods and techniques applied to learning and teaching; attention is given to individual differences in native capacity, ability, and aptitude; designed to be of professional aid to future educators and psychologists.

**Psychology 310 Industrial Psychology** First semester; 3 lecture hours. 3 credits. • Application of psychological principles and techniques to problems in personnel management and human engineering; recruitment, selection, training, and placement in industry; criteria in testing and test development; morale evaluation and improvement, employee counseling; worker-management communications; human engineering in equipment design, quality control, working conditions, and safety.

**Psychology 317-318 Experimental Psychology** Year course; 2 lecture hours and 2 laboratory hours per semester. 6 credits. Prerequisite: Psychology 211 or equivalent may be taken concurrently. • An introduction to experimental procedures and laboratory techniques in psychology; demonstrations and experiments concerning sensation, perception, learning, emotion, motivation.

**Psychology 321 Social Psychology** Second semester; 3 lecture hours. 3 credits. • Effects of modern society upon personality developments; individual behavior in a group context; basic principles governing human interactions. Within the boundaries of social psychology, the course integrates findings in anthropology, sociology, psychology, and psychiatry.

**Psychology 322 Personality and Behavior of the Afro-American** Semester course; 3 lecture hours. 3 credits. Prerequisite: Psychology 201. • A study

of personality factors such as motivation, ego-functioning, and the socialization processes with special emphasis on living conditions of Afro-Americans. (Same as Afro-American Studies 300.)

**Psychology 324 Psychology of Advertising** First semester; 3 lecture hours. 3 credits. • Psychological factors involved in determining attention, attitudes, and suggestibility as related to consumer preferences and purchasing habits; the role of advertising in influencing consumer behavior.

**Psychology 401-402, 501-502 Physiological Psychology** Continuous course; 3 lecture hours. 3-3 credits. • Data from the fields of anatomy and physiology are presented, and their implications for psychology are discussed. The central nervous system; internal environment; vision; audition; reflexes; emotion; learning; behavior disorders and their physiological components. Behavior of human organism is studied from the psycho-physiological point of view.

**Psychology 406, 506 Perception** Second semester; 3 lecture hours. 3 credits. • Historical development of perceptual problems in psychology. A survey of early and contemporary major perceptual theories and related research with major emphasis on visual perception.

**Psychology 407, 507 Abnormal Psychology** Both semesters; 3 lecture hours. 3 credits. Prerequisite: 12 hours in psychology, including Psychology 409. A course in philosophy would be helpful. • Traditional views of symptoms, causes, and treatment of psychoneuroses; psychoses, and deviant personalities are dealt with in readings and class discussion. New view and approaches to understanding and treatment of maladaptive process are stressed in the lectures and discussions.

**Psychology 409, 509 Psychology of Personality** First semester; 3 lecture hours. 3 credits. • Contributions of psychology to study and understanding of human personality; meaning and application of different concepts in description of personality dynamics; an anthropological analysis of man, his basic emotions, their relationships and their meaning; sources of personality formation; evaluation of current personality theories.

**Psychology 410, 510 Principles of Learning** Second semester; 3 lecture hours. 3 credits. • A course involving principles of learning as they apply to reinforcement, extinction, motivation, emotion, problem-solving, etc., with emphasis on experimental findings. Major theoretical approaches will be examined. For advanced undergraduate and graduate students.

**Psychology 411, 511 Survey of Psychological Tests** Both semesters; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: Psychology 211. • A survey of commonly used group tests; testing procedures and rationale underlying these tests; tests of intelligence, aptitude, achievement, interest, and personality critically examined, procedures described for selecting and evaluating specific group tests in these areas.

**Psychology 414, 514 System and Theories in Psychology** Second semester; 3 lecture hours. 3 credits. • A study of contemporary theories and systems of psychology. Recent schools of thought will be studied to show their influence on current theories.

**Psychology 415, 515 Comparative Psychology** Second semester; 3 lecture hours. 3 credits. • Survey of methods and results of research on animal behavior. Evolution of behavior and intelligence, receptor control of behavior, and higher mental processes in animals.

**Psychology 418, 518 Experimental Psychology—General Methodology** Second semester; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: Psychology 211, or 317, or equivalent. • A continuation course for undergraduates and intensive introduction for graduates. A methodological approach, treating experimental procedure and statistical analysis in the context of general scientific method. Operational definition; analysis of the research situation; planning, execution, and analysis of experiments in selected areas of psychology.

**Psychology 422 Techniques of Marketing and Attitude Surveys** Second semester; 3 lecture hours. 3 credits. • Psychological techniques applied to the measurement and evaluation of attitudes and opinions of individuals and groups; voters, consumers, majorities and minorities, opinion surveys; development and use of questionnaires.

**Psychology 424, 524 Occupational Information and Job Analysis** Both semesters; 3 lecture hours. 3 credits. • A survey of occupations and occupational information for guidance counselors and employment interviewers. Application of the methods and techniques in making job analysis and procedures and methods of presenting occupational information through counseling.

**Psychology 425 Field Work** Both semesters; 1 full day. 3 credits. • The student is placed in an appropriate agency according to his field of interest (personnel, guidance, emotionally disturbed, etc.) where he works one full day a week under agency supervision.

**Psychology 427 Psychology of the Handicapped** First semester; 3 lecture hours. 3 credits. • A survey of the handicapped person, with particular emphasis on the mentally retarded, crippled, cerebral palsied, and hard-of-hearing: extent and nature of the handicap; psychological and emotional aspects; education and treatment and rehabilitation.

**Psychology 428, 528 Mental Hygiene in the Classroom** First semester; 3 lecture hours. 3 credits. • An analysis of common problems that occur in the elementary school class with a discussion of current theories of learning and psychoanalytic insights that tend to ameliorate such problems.

**Psychology 429-430 Readings in Psychology** Either semester by appointment. 1-2-3 credits. • The student undertakes a library research project which he performs with the assistance and supervision of one staff member. He is to write a paper and pass, at the end of the semester, an oral comprehensive examination before a committee consisting of three staff members. Only undergraduate seniors are given permission to take these courses.

**Psychology 431, 531 Industrial Safety** Semester course; 3 lecture hours. 3 credits. • A comprehensive study of the principles and methods for the control and prevention of accidents adapted to the need of business and industry.

**Psychology 440, 540 Vocational and Educational Guidance** Second semester; 3 lecture hours. 3 credits. • The principles and organization of guidance programs in high schools and colleges. The roles of aptitudes, interests, training, and abilities. Duties and qualifications of counselor.

**Psychology 441, 541 Selection and Classification** Second semester; 3 lecture hours. 3 credits. • Study of principles of theory of psychological tests used in industry for selection and classification of personnel. Special emphasis on relationship between tests and criteria of job success. Other devices used for selection and classification such as interviews and personal history will also be covered.

**Psychology 450, 550 Psychology of the Mentally Retarded** Second semester. 3 credits. • A detailed psychological analysis of problems involved in working with mentally retarded, including those related to the criteria of mental deficiency, classification and diagnosis, psychological testing, casual factors, training and education, interpreting mental deficiency to parents, institutionalization, and professional training for workers in the area.

**Psychology 451, 551 History of Psychology** Second semester; 3 lecture hours. 3 credits. • Historical data of the development of psychology from the ancient Grecian period until the present time, presented in the form of history of ideas and theories; leading personalities in psychology throughout history and their contributions described.

## COURSES IN RELIGIOUS STUDIES

**Religious Studies 301 Introduction to the Old Testament** Semester course; 3 lecture hours. 3 credits. • A survey of the Old Testament from its beginning through the post-Exile period. Emphasis given to the literary and historical development of the text.

**Religious Studies 302 Introduction to the New Testament** Semester course; 3 lecture hours. 3 credits. Prerequisite: Consent of the instructor. • A survey of the New Testament with particular emphasis given to the historical development of the Canon.

**Religious Studies 303 Introduction to the Apocrypha** Semester course; 3 lecture hours. 3 credits. Prerequisite: Religious Studies 301-302 or consent of instructor. • A course designed to acquaint the student with Hebrew-Christian writings associated with the late Old Testament and early New Testament period. The general problem concerning the **Pseudepigrapha** is also considered in this course.

**Religious Studies 304 Historical Development of Judaic Thought** Semester course; 3 lecture hours. 3 credits. Prerequisite: Religious Studies 301 or consent of instructor. • A general survey of the dynamics and characteristic patterns of Judaic thought from earliest times to the present.

**Religious Studies 305 The Old Testament Prophets** Semester course; 3 lecture hours. 3 credits. Prerequisite: Religious Studies 301 or consent of the instructor. • A study of the literature of the Old Testament prophets and their contributions to religion.

**Religious Studies 313 Life and Literature of Paul** Semester course; 3 lecture hours. 3 credits. Prerequisite: Religious Studies 302 or consent of instructor. • A survey of the life and literature of Paul as given in Acts and the Epistles, involving special consideration of Paul's contribution to the expansion of Christianity.

**Religious Studies 315 Israel and the Ancient Near East** Semester course; 3 lecture hours. 3 credits. Prerequisite: Religious Studies 301 or consent of instructor. • A comparative study of ancient Near Eastern political histories, cultures, and religions, with respect to their influence in Israelite customs and society. The latest archaeological and inscriptional evidence will be reviewed.

**Religious Studies 321 Dead Sea Scrolls** Semester course; 3 lecture hours. 3 credits. Prerequisite: Consent of instructor. • A survey of the major manuscript discoveries from Qumran near the Dead Sea, some of the theories concerning them, and an examination of their significance for biblical scholarship.

**Religious Studies 361 The Bible as Literature** Semester course; 3 lecture hours. 3 credits. Prerequisite: Consent of instructor. • Literary aspects of the Bible will be considered. Also attention will be given to the history of the English Bible.

**Religious Studies 401, 402 Religions of the World** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: Consent of instructor. • An investigation of the historical, cultural, and theological foundations and development of Hinduism, Buddhism, Jainism, Sikhism, Confucianism, Taoism, Shintoism, Zoroastrianism, Islam, Judaism, Christianity, and some modern attempts at syncretism.

**Religious Studies 403 History of Western Religion** Semester course; 3 lecture hours. 3 credits. • A study of the development of religious thought and action in Western culture, including the Medieval, Reformation, Counter-Reformation, and Modern periods.

**Religious Studies 405 Contemporary Problems in Christian Thinking** Semester course; 3 lecture hours. 3 credits. Prerequisite: Consent of instructor. • Problems to be treated include the Christian understanding of history, the current ecumenical movement within the church, reinterpretation of traditional doctrines, and changes in ethical thinking and social involvement.

**Religious Studies 490 Topical Seminar** Semester course; 3 lecture hours. 3 credits. Prerequisite: Written consent of instructor. • May be repeated once. An in-depth study of selected ideas or concepts, religious thinkers, or significant movements in the field of religion.

## COURSES IN SOCIOLOGY

**Sociology 101 General Sociology** Both semesters; 3 lecture hours. 3 credits. • An introduction to the study of human society. The basic concepts of society, culture, and personality, and their relationships to each other are studied and then used to analyze the major social institutions. Social class, race, and social change are also included.

**Sociology 102 Social Problems in the United States** Both semesters; 3 lecture hours. 3 credits. • A sociological approach to selected contemporary social problems, including juvenile delinquency and crime, race relations, poverty, and others, through use of such analytical concepts as role, social class, and subculture.

**Sociology 103 Cultural Anthropology** Both semesters; 3 lecture hours. 3 credits. • A general survey of the field of anthropology; the development of man and his culture. Liberal use is made of area studies.

**Sociology 200 The Community** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101. • A comparative analysis of communities from different parts of the world.

**Sociology 210 Collective Behavior** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101. • An analysis of non-institutional forms of behavior, including mobs, riots, and social movements.

**Sociology 251 Introductory Archeology** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101. • History, development, and current trends in research methods and theories in archeology, illustrated with studies of representative areas of the world.

**Sociology 304 Sociology of the Family** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101. • The family in selected cultures; analysis of socialization and the parent-child relationship, courtship and marriage, family crises and problems, and the influence of social change on the family.

**Sociology 315 Sociology of Education** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101. • Analysis of education as a social institution in the societal context. Cross-cultural comparative perspectives on education. Focus on the contemporary university as social system, complex organization, socializing agent, etc.

**Sociology 318 Social Thought** Semester course; 3 lecture hours. 3 credits. Prerequisite: Upper division standing and/or Sociology 101. • A review of major social thinkers, starting with classical Roman and Greek philosophers and ending with Auguste Comte.

**Sociology 323 Marriage Relations** Semester course; 3 lecture hours. 3 credits. • Analysis of the marriage relationship as a means of mutual satisfaction, emphasizing marital role expectations and communication in developing and maintaining a successful marriage relationship.

**Sociology 327 Urban Sociology** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101. • Origin, character, and significance of urban communities. Ecological and social factors are analyzed as well as changes in urban social organization and their consequences.

**Sociology 331 Juvenile Delinquency** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101. • Analysis of the biological, cultural, psychological, and social factors involved in juvenile delinquency and their relation to current techniques of treatment, prevention, and control.



**Sociology 334 Ethnology of North America** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 103 or permission of instructor. • Native North American culture-types. Selected social systems, economics, technologies, and environmental factors.

**Sociology 338 Social Structure of the United States** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101. • A survey of major values, attitudes, beliefs, institutions, and other social, cultural, economic, and demographic features of contemporary American society.

**Sociology 352 Social and Cultural Change** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101 or Sociology 103. • An analysis of the process of social and cultural factors in relationship to specific reform, revolutionary, and expressive social movements.

**Sociology 369 Urban Anthropology** Semester course; 4 lecture hours. 4 credits. Prerequisite: Sociology 101 or Sociology 103. • The application of traditional anthropological techniques to urban settings starting with the early studies of small rural communities to the ethnographic accounts of subcultures within modern metropolitan regions. Special emphasis upon field methods and the application of these to actual field experiences of students.

**Sociology 402 Sociological Theory** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101. • A study of the works of the major sociological theorists of the 20th century.

**Sociology 403 Criminology** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101. • Analysis of the nature, extent, and distribution of crime emphasizing theories of and research on causation, prediction, and prevention.

**Sociology 416 Statistics** Semester course; 2 lecture and 2 laboratory hours. 3 credits. • An introduction to descriptive and inferential statistics for the behavioral sciences.

**Sociology 420 Research Methods in the Social Sciences** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: Sociology 416. • Current methods of research in sociology.

**Sociology 421 Social Stratification** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101. • Analysis of class and caste systems and of social mobility.

**Sociology 422 Minority Groups in the United States** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101. • A study of the various racial, religious, and ethnic minority groups. Accommodation and assimilation. Relation of subcultures to the dominant culture.

**Sociology 426 Population** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101. • The study of trends in fertility, mortality, population growth, distribution, migration, and composition. The mutual influence of these factors and social organization.

**Sociology 428 Comparative Urban Systems** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 327. • Typologies of cities. Cross-

cultural comparisons of social institutions in specifically urban forms and context, cross-cultural views and experience of major urban problems.

**Sociology 436 Industrial Sociology** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101. • The study of industrial plants and business organization as social systems.

**Sociology 445 Medical Sociology** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 420, or permission of instructor. • A survey of selected social, economic, cultural and social psychological factors in mental health and illness. Such problems as defining mental illness; social factors in the distribution, diagnosis, etiology, and treatment of mental disorders; mental illness as a social role; and research methods used in the sociology of mental illness will be considered.

**Sociology 446 Sociology of Mental Health and Illness** 3 lecture hours. 3 credits. Prerequisite: Sociology 420 or permission of instructor. • A survey of selected social, economic, cultural, and social psychological factors in mental health and illness. Such problems as defining mental illness; social factors in the distribution, diagnosis, etiology, and treatment of mental disorders; mental illness as a social role; and research methods used in the sociology of mental illness will be considered.

**Sociology 450 Sociology and the Arts** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101 or permission of the instructor. • The social functions of the arts, such as architecture, the visual arts, music, and literature in certain historical eras and cultures; an examination of the interrelationship of society, artistic production, and the artist.

**Sociology 451 Social Anthropology** Semester course; 3 lecture hours. 3 credits. Prerequisites: Sociology 101 or Sociology 103. • A comparative analysis of culture and social structure.

**Sociology 454 Anthropological Theory** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101 or Sociology 103. • Major theoretical perspectives in social and cultural anthropology.

**Sociology 475 Social Organization** Semester course; 3 lecture hours. 3 credits. Prerequisite: Sociology 101. • A survey of theory and research in social organization including the study of behavior in modern complex organizations, such as factories, commercial firms, hospitals, and schools. Formal and informal structures and organizational processes such as authority and decision-making, social control, communication, stratification, and organizational conflict and change, will be examined from a sociological perspective.

**Sociology 480-481 Junior Tutorial** Continuous course. Maximum of 3 credits each semester. • Written permission required from the chairman of the departmental committee on tutorials. The tutorial is intended to go beyond existing courses to study theories and other specific problems in depth. Students also meet regularly in seminars with faculty.

**Sociology 490-491 Senior Tutorial** Continuous course. Maximum of 3 credits each semester. • Written permission required from the chairman of

the departmental committee on tutorials. The tutorial is intended to go beyond existing courses to study theories and other specific problems in depth. Students also meet regularly in seminars with faculty.

**Sociology 499 Topical Seminar in Sociology and Anthropology.** Semester course. A maximum of 6 credits. Prerequisite: Permission of the instructor.  
 • Seminar on current specialized areas of sociological and anthropological interest.

## COURSES IN SPANISH

**Spanish 101-102 Elementary Spanish** Year course; 5 lecture hours and 1 laboratory hour. 8 credits. • Elementary grammar, reading, oral drill. Students entering with more than one high school unit in Spanish will not receive credit in this course.

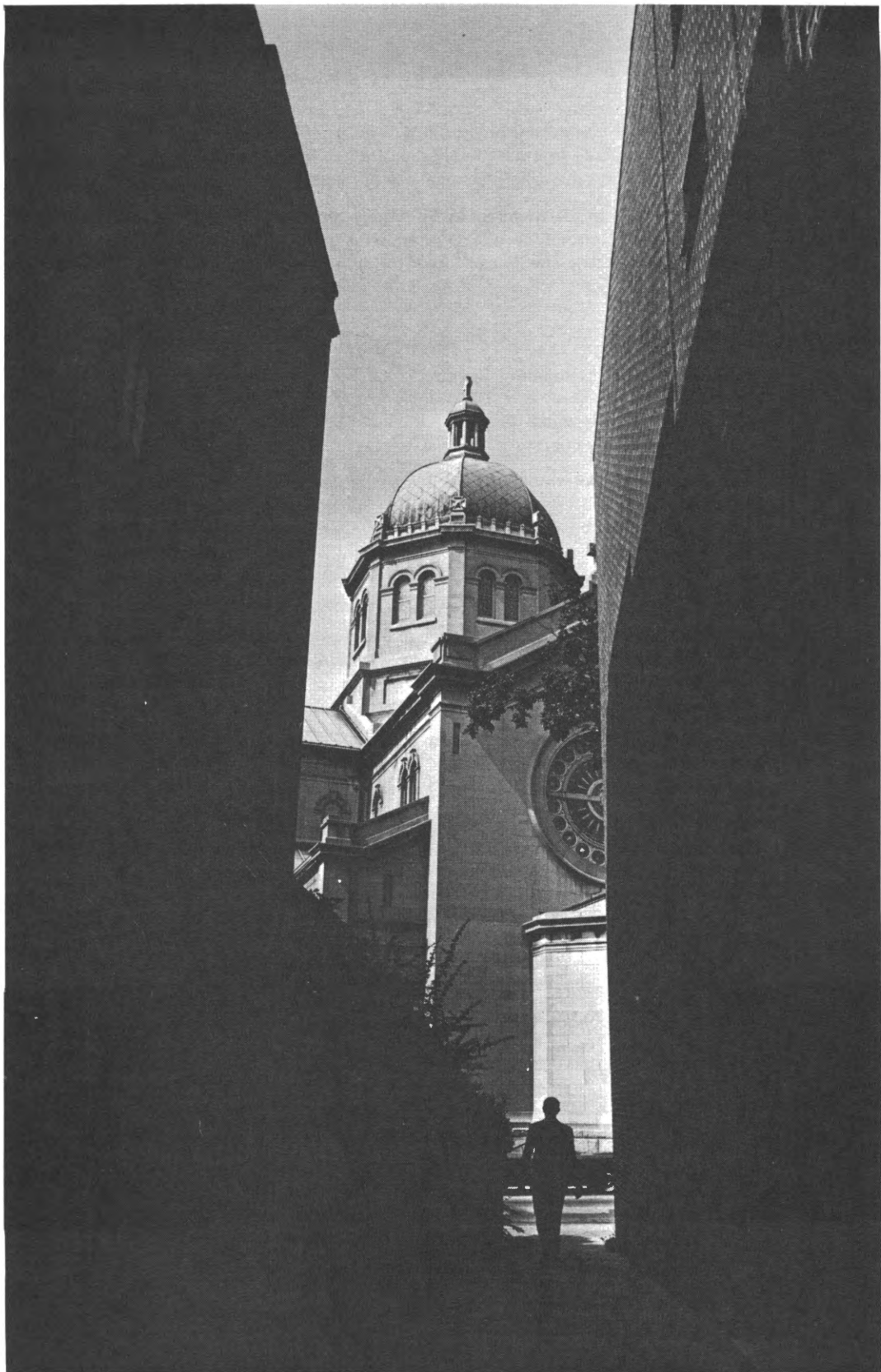
**Spanish 201-202 Intermediate Spanish** Year course; 3 lecture hours and 1 laboratory hour. 6 credits. Prerequisite: Spanish 101-102 or two units of high school Spanish. • Rapid review of the essentials of grammar; conversation in Spanish; readings from Spanish literature. Students entering with more than two high school units in Spanish will not receive credit for this course.

**Spanish 205, 206 Intermediate Conversation and Civilization** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: Spanish 201-202 or the equivalent. • Intensive practice in the spoken language with emphasis on discussions dealing with Spanish and Latin-American civilization.

**Spanish 301, 302 Survey of Literature** Semester courses; 3 lecture hours. 3, 3 credits. Conducted in Spanish. Prerequisite: Spanish 205, 206. • A survey of Spanish literature up to the present.

**Spanish 303-304 Advanced Grammar and Translation** Year course; 3 lecture hours. 6 credits. Prerequisite: Spanish 201-202 or the equivalent. • A systematic review of Spanish grammar with emphasis on the elements of style and vocabulary building; translation of English stylistics.

**Spanish 305, 306 Spanish-American Literature** Semester courses; 3 lecture hours. 3, 3 credits. Taught in Spanish. Prerequisite: Spanish 205, 206, or equivalent. • A reading course in the literature of the Spanish-speaking countries of the Western Hemisphere, from the early writings of the explorers to the present. First semester: From discovery to independence. Second semester: From independence to the present. No formal grammar.



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## **SCHOOL OF BUSINESS**

**J. CURTIS HALL, Dean**

**JOHN D. LAMBERT, Assistant Dean**

The school of business prepares students for work in the broad field of business. It combines sound programs in business administration with broad general education. The school offers degree programs in accounting, advertising, business administration, business education, information systems, economics, management, office administration, and retailing.

The major objective of the school is to prepare students for careers in business. The various curricula provide a broad foundation in the principles of business organization and management and at the same time allow a student to select certain courses that best fulfill his particular needs. All programs are such that students also may develop an understanding of the rights and responsibilities of democratic citizenship.

The school of business also has these additional objectives:

1. To provide service courses to other schools on the campus.
2. To render service to the business community through short courses, management training programs, and special conferences.
3. To engage in and encourage research in the fields of business and economics.
4. To prepare students to enter graduate study.
5. To offer programs of graduate instruction in business and economics.

Candidates for degrees in the school of business must complete the number of credits designated in the particular curriculum outlines that follow.

**ACCOUNTING**

**MERVYN W. WINGFIELD**, Chairman of the Department

Larry P. Bailey / Sanford L. Boswell / Edward N. Coffman / Larry D. Fetzer  
 Charles E. Fletcher / B. Roland Freasier, Jr. / H. Wayne Hudgins  
 Donald E. Kuhns / Richard A. Sellman / James M. Todd / Jackie G. Williams  
 H. David Willis

Part time—Frank H. Abernathy

The accounting curriculum is designed to prepare students for careers in such fields as industrial, governmental, and public accounting. It also prepares graduates for executive positions in government and industry. The program is designed so that the student begins his work in accounting immediately upon his admission to the University. Graduates are eligible for the CPA examination in Virginia.

**Curriculum in Accounting**

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
Business 101-102. Decision Mathematics .....	3	3
Business 203-204. Principles of Accounting .....	3	3
English 101-102. Composition and Literature .....	3	3
Psychology 201. General Psychology .....	—	3
Sociology 101. General Sociology		
or		
Business 121. Introduction to Business .....	3	—
Speech 121. Effective Speech .....	3	—
Elective (Non-Business) .....	—	3
Physical Education .....	1	1
	16	16
<i>Second Year</i>		
Business 232. Principles of Management .....	—	3
Business 272. Principles of Marketing .....	3	—
Business 303-304. Intermediate Accounting .....	3	3
Economics 201-202. Principles of Economics .....	3	3
English 201 or 203 or 205		
and		
English 202 or 204 or 206 .....	3	3
History or Political Science (Year course) .....	3	3
Physical Education .....	1	1
	16	16

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Third Year</i>		
Business 301. Business Statistics .....	3	—
Business 412. Statistical Method .....	—	3
Business 323-324. Business Laws .....	3	3
Business 360. Data Processing Principles or Business 361. Computational Programming or Business 467. COBOL Programming .....	3	—
Business 401-402. Cost Accounting .....	3	3
Business 403-404. Advanced Accounting .....	3	3
Business 460. Data Processing Systems and Methods....	—	3
Economics 307. Money and Banking .....	—	3
	15	18

*Fourth Year*

Business 405. Tax Accounting .....	3	—
Business 406. Auditing .....	—	3
Business 408. CPA Problems .....	—	3
Business 411. Financial Management .....	3	—
Economics 421. Government and Business .....	3	—
Approved Electives .....	6	9
	15	15

**ADVERTISING**

JAMES R. LOONEY, Acting Chairman of the Department

John M. Callahan / Stephen R. Martin

The department offers a four-year program leading to a bachelor of science degree in advertising. It is presented for students preparing for careers in advertising departments of manufacturers and retailers, advertising agencies, advertising media, and advertising service organizations. The program combines general education courses, professional courses in advertising and distribution, and selected courses in journalism and business.

As an integral part of the curriculum, specialized courses in advertising are offered by the department in cooperation with the leading advertisers, advertising agencies, newspapers, radio and television stations, and other advertising service organizations in Richmond.

**Curriculum in Advertising**

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
Advertising 101. Principles of Advertising .....	3	—
Art Education 121-122. Principles of Art .....	2	2
Business 101-102. Decision Mathematics .....	3	3
English 101-102. Composition and Literature .....	3	3
Journalism 101. Mass Communications .....	—	3
Electives .....	3	3
Physical Education .....	1	1
	15	15
 <i>Second Year</i>		
Advertising 201. Advertising Media .....	3	—
Advertising 202. Advertising Communication .....	—	3
Business 232. Principles of Management .....	—	3
Business 272. Principles of Marketing .....	3	—
Economics 201-202. Principles of Economics .....	3	3
English 201 or 203 or 205 and		
English 202 or 204 or 206 .....	3	3
Electives .....	3	3
Physical Education .....	1	1
	16	16
 <i>Third Year</i>		
Advertising 301. Consumer Behavior .....	3	—
Advertising 303. Creative Strategy .....	3	—
Advertising 304. Media Strategy .....	—	3
Business 203-204. Principles of Accounting .....	3	3
Business 301. Business Statistics .....	—	3
Business or		
Economics Electives (300-400) .....	3	—
History, Political Science, Psychology, Sociology Electives..	3	3
Electives (300-400) .....	3	3
	18	15



	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Fourth Year</i>		
Advertising 401-402. Advertising Campaigns .....	3	3
Advertising 403. Advertising Management .....	3	—
Advertising 404. Current Advertising Analysis .....	—	3
Business 474. Marketing Research .....	3	—
Business or		
Economics Electives (300-400) .....	3	3
Electives (300-400) .....	3	6
	15	15

## BUSINESS ADMINISTRATION AND MANAGEMENT

RUSSELL A. JOHNSTON, Chairman of the Department

EUGENE H. HUNT, Assistant Chairman

Moustafa H. Abdelsamad / John A. Bachmann / William R. Beaton  
 Narendra Bhandari / Richard O. Blalack / Darrell R. Brown / Collin Bushway  
 Herbert J. Davis / Guy J. De Genaro / James W. Duff / Francis T. Eck  
 David R. Falke / Jerry T. Ferguson / Lawrence K. Finley / Frederick C. Haas  
 G. Blair Harry / Thomas J. Maronick / Thomas A. McKee  
 Alexander C. Murrelle / Charles A. Nickerson / R. Clifton Poole  
 S. Travis Pritchett / Davis T. Ratcliffe / George W. Rimler  
 Neale M. Robertson / Robert N. Sheffield / Michael A. Spinelli  
 Branch K. Sternal / Jack E. Thornton / Paul M. Umberger  
 Carl G. K. Weaver / D. Robley Wood, Jr. / Edward M. Wood, Jr.

### Curriculum in Business Administration

The major in business administration is intended for those who want a broad education in business but with little concentration in a single business field. The requirements for the first two years of this program are the same as for the major in management.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
Business 101-102. Decision Mathematics .....	3	3
English 101-102. Composition and Literature .....	3	3
History or		
Political Science (Year course) .....	3	3

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
Sociology 101. General Sociology or		
Business 121. Introduction to Business .....	3	—
Speech 121. Effective Speech .....	—	3
Electives (Non-Business) .....	3	3
Physical Education .....	1	1
	<hr/>	<hr/>
	16	16

*Second Year*

Business 203-204. Principles of Accounting .....	3	3
Business 232. Principles of Management .....	—	3
Economics 201-202. Principles of Economics .....	3	3
English 201 or 203 or 205 and		
English 202 or 204 or 206 .....	3	3
Psychology 201. General Psychology .....	3	—
Approved Electives .....	3	3
Physical Education .....	1	1
	<hr/>	<hr/>
	16	16

*Third Year*

Business 272. Principles of Marketing .....	3	—
Business 301. Business Statistics .....	—	3
Business 323-324. Business Law .....	3	3
Business 325. Business Writing .....	3	—
Business 331. Personnel Management .....	3	—
Business 360. Data Processing Principles or		
Business 361. Computational Programming or		
Business 467. COBOL Programimng .....	—	3
Economics 305. Public Finance-State and Local or		
Economics 306. Public Finance-Federal .....	3	—
Economics 307. Money and Banking .....	—	3
History/Economics 319. Economics History of the U.S.....	—	3
	<hr/>	<hr/>
	15	15

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Fourth Year</i>		
Business 411. Financial Management .....	3	—
Business 412. Statistical Method .....	3	—
Business 415. Investments .....	—	3
Business 422. Real Estate .....	—	3
Business 423. Insurance .....	3	—
Business 487. Quantitative Management Methods .....	—	2
Economics 402. Business Cycles and Forecasting .....	—	3
Economics 421. Government and Business .....	3	—
Economics 431. Labor Economics .....	3	—
Approved Electives (300-400) .....	—	6
	15	17

### Curriculum in Management

This program is intended for students interested in the following areas of management in business and industry: industrial management, administrative management, and personnel management. The requirements for the first two years of the program are the same as those for the major in business administration.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
Business 101-102. Decision Mathematics .....	3	3
English 101-102. Composition and Literature .....	3	3
History or		
Political Science (Year course) .....	3	3
Sociology 101. General Sociology or		
Business 121. Introduction to Business .....	3	—
Speech 121. Effective Speech .....	—	3
Electives (Non-Business) .....	3	3
Physical Education .....	1	1
	16	16

### *Second Year*

Business 203-204. Principles of Accounting .....	3	3
Business 232. Principles of Management .....	—	3
Economics 201-202. Principles of Economics .....	3	3

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
English 201 or 203 or 205 and		
English 202 or 204 or 206 .....	3	3
Psychology 201. General Psychology .....	3	—
Approved Electives .....	3	3
Physical Education .....	1	1
	16	16

*Third Year*

Business 272. Principles of Marketing .....	3	—
Business 301. Business Statistics .....	—	3
Business 323-324. Business Law .....	3	3
Business 325. Business Writing .....	—	3
Business 331. Personnel Management .....	3	—
Business 360. Data Processing Principles or		
Business 361. Computational Programming or		
Business 467. COBOL Programming .....	—	3
Business 401-402. Cost Accounting .....	3	3
Psychology 310. Industrial Psychology .....	3	—
	15	15

*Fourth Year*

Business 411. Financial Management .....	—	3
Business 412. Statistical Method .....	3	—
Business 432. Industrial Management .....	—	3
Business 435. Seminar in Personnel Management .....	3	—
Business 487. Quantitative Management Methods .....	—	2
Business 499. Management Seminar .....	—	3
Economics 307. Money and Banking .....	3	—
Economics 421. Government and Business .....	3	—
Economics 431. Labor Economics .....	3	—
Approved Electives (300-400) .....	—	6
	15	17

**BUSINESS EDUCATION AND OFFICE ADMINISTRATION**

**W. L. TUCKER**, Chairman of the Department

Jo Ann Ellis / Ann P. Graham / Dorothy E. Lee / Robert P. Miller  
 Mosetta P. Sykes / Elizabeth I. Walls / Jane D. Williams  
 Millicent J. Williams

The programs in business education are designed for young men and women who desire careers in teaching business subjects on the junior high school, the senior high school, or the college level.

The four-year program in business education includes 48 semester credits of general education required of all teachers certified by the State of Virginia. See the requirements from the school of education for a listing of these credits.

Endorsements to teach may be earned in selected areas of business education by completing 45 semester hours as follows:

<b>Area A:</b>	<b>General Office Procedures</b> . . . . .	<b>45 credits</b>
	(Endorsed to teach basic business, bookkeeping, office procedures, and typewriting.)	
<b>Area B:</b>	<b>Stenography</b> . . . . .	<b>45 credits</b>
	(Endorsed to teach basic business, office procedures, recordkeeping, shorthand, and typewriting.)	
<b>Area C:</b>	<b>Bookkeeping-Data Processing</b> . . . . .	<b>45 credits</b>
	(Endorsed to teach basic business, bookkeeping and accounting, data processing, and office procedures.)	

**Separate Subject Endorsement:** Endorsement in specific subject areas may be earned by completing the number of credits indicated:

<b>Basic Business</b> . . . . .	<b>12 credits</b>
<b>Bookkeeping and Accounting</b> . . . . .	<b>12 credits</b>
<b>Data Processing</b> . . . . .	<b>12 credits</b>
<b>Shorthand (9 hours) and Typewriting (6 hours)</b> . . . . .	<b>15 credits<sup>1</sup></b>
<b>Office Systems and Procedures</b> . . . . .	<b>12 credits</b>

Candidates who wish to be endorsed in a limited area may substitute approved electives to complete the degree program.

State scholarships are available for those who will teach at least one year in the public schools of Virginia.

**Placement Tests:** Some incoming students must take departmental placement tests as required by their programs of study. Placement tests in shorthand and typewriting may be required of secretarial administration and business education students who have had previous training. These tests must be taken at the beginning of the semester in which the student enters the University and on the date announced during the registration period. Tests will not be given at any other time.

<sup>1</sup> Requirement may be reduced if the student is exempted from one or more courses by virtue of prior training.

**Curriculum in Business Education****Area A: General Office Procedures**

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology (or other laboratory science) . . . . .	4	4
Business 101-102. Mathematics . . . . .	3	3
Business 121. Introduction to Business . . . . .	3	—
Business 145. Beginning Typewriting <sup>2</sup> . . . . .	—	3
English 101-102. Composition and Literature . . . . .	3	3
History 201-202. American History . . . . .	3	3
Physical Education . . . . .	1	—
	17	16
<i>Second Year</i>		
Business 203-204. Principles of Accounting . . . . .	3	3
Business 232. Principles of Management . . . . .	3	—
Business 245. Intermediate Typewriting . . . . .	3	—
Business 345. Advanced Typewriting . . . . .	—	3
Business 360. Data Processing Principles . . . . .	—	3
Economics 201-202. Principles of Economics . . . . .	3	3
English 201-202. Western World Literature . . . . .	3	3
Approved Elective . . . . .	—	3
	15	18
<i>Third Year</i>		
Accounting . . . . .	3	3
Business 323-324. Business Law . . . . .	3	3
Business 343. Office Machines . . . . .	3	—
Business 349. Office Procedures . . . . .	—	3
Business 353. Introduction to Business Teaching . . . . .	3	—
Business 453. Teaching Bookkeeping and Basic Business . . . . .	3	—
Psychology 201. General Psychology . . . . .	—	3
Approved Elective . . . . .	—	3
	15	15
<i>Fourth Year</i>		
		<i>A B</i>
Business 325. Business Writing . . . . .	3	— —
Business 438. Office Management . . . . .	3	— —
Education 486. Supervised Teaching—Secondary <sup>3</sup> . . . . .	—	6 —
Health Education 385. School and Community Hygiene . . . . .	—	— 3
Psychology 305. Educational Psychology . . . . .	—	— 3
Speech 308. Speech for Teachers . . . . .	3	— —
Approved Electives . . . . .	6	— 3
	15	15

<sup>2</sup> Required only of those who fail to pass the typewriting placement test.<sup>3</sup> Education 486 may be taken during the first 8 weeks (Column "A") of either semester of the final year.

**Curriculum in Business Education**

**Area B: Stenography**

Credits  
1st      2nd  
Sem.    Sem.

*First Year* (Same as Area A on page 186)

*Second Year*

Business 203-204. Principles of Accounting . . . . .	3	3
Business 241-242. Beginning and Intermediate Shorthand. . . . .	3	3
Business 245. Intermediate Typewriting . . . . .	3	—
Business 345. Advanced Typewriting . . . . .	—	3
Economics 201-202. Principles of Economics . . . . .	3	3
English 201-202. Western World Literature . . . . .	3	3
Approved Elective . . . . .	—	3
	15	18

*Third Year*

Business 232. Principles of Management . . . . .	3	—
Business 323-324. Business Law . . . . .	3	3
Business 341. Advanced Shorthand and Transcription. . . . .	3	—
Business 343. Office Machines . . . . .	—	3
Business 349. Office Procedures . . . . .	3	—
Business 353. Introduction to Business Teaching . . . . .	3	—
Business 360. Data Processing Principles . . . . .	—	3
Business 455. Teaching Secretarial Subjects . . . . .	—	3
Psychology 201. General Psychology . . . . .	—	3
	15	15
		A    B

*Fourth Year*

Business 325. Business Writing . . . . .	3	—	—
Education 486. Supervised Teaching—Secondary <sup>4</sup> . . . . .	—	6	—
Health Education 385. School and Community Hygiene . . . . .	—	—	3
Psychology 305. Educational Psychology . . . . .	—	—	3
Speech 308. Speech for Teachers . . . . .	3	—	—
Approved Electives . . . . .	9	—	3
	15	15	

<sup>4</sup> Education 486 may be taken during the first eight weeks (Column "A") of either semester of the final year.

**Curriculum in Business Education****Area C: Bookkeeping and Data Processing**

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year (Same as Area A on page 186)</i>		
 <i>Second Year</i>		
Business 203-204. Principles of Accounting .....	3	3
Business 232. Principles of Management .....	3	—
Business 360. Data Processing Principles .....	—	3
Economics 201-202. Principles of Economics .....	3	3
English 201-202. Western World Literature .....	3	3
Electives .....	3	3
	15	15
 <i>Third Year</i>		
Business 301. Business Statistics .....	3	—
Accounting .....	3	3
Business 323-324. Business Law .....	3	3
Business 343. Office Machines .....	—	3
Business 353. Introduction to Business Teaching .....	3	—
Business 453. Teaching Bookkeeping and Basic Business.	—	3
Business 461-462. Unit Record Equipment .....	3	3
Psychology 201. General Psychology .....	—	3
	15	18
		A B
 <i>Fourth Year</i>		
Business 325. Business Writing .....	3	— —
Business 438. Office Management .....	3	— —
Business 463. Computer Programming .....	3	— —
Education 486. Supervised Teaching—Secondary <sup>5</sup> ....	—	6 —
Health Education 385. School and Community Hygiene.	—	— 3
Psychology 305. Educational Psychology .....	—	— 3
Speech 308. Speech for Teachers .....	—	— 3
Approved Electives .....	6	— —
	15	15

<sup>5</sup> Education 486 may be taken during the first eight weeks (Column "A") of either semester of the final year.



### Curriculum in Secretarial Administration

In planning the curricula in secretarial administration, recognition has been given to the fact that secretaries need a broad background in business that encompasses more than shorthand and typewriting skills. In the programs offered in this department, provision is made for students to prepare for the professional positions held by top-level secretaries. The courses offered form a foundation for those who, after the requisite experience, plan to take the Certified Professional Secretary Examination. The following program leads to the bachelor of science degree.

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
Business 101-102. Decision Mathematics . . . . .	3	3
Business 121. Introduction to Business . . . . .	—	3
Business 145-245. Beginning and Intermediate Typewriting . . . . .	3	3
English 101-102. Composition and Literature . . . . .	3	3
History 201-202. American History		
or		
European History . . . . .	3	3
Speech 121. Effective Speech . . . . .	3	—
Physical Education . . . . .	1	1
	<hr/>	<hr/>
	16	16
<i>Second Year</i>		
Business 203-204. Principles of Accounting . . . . .	3	3
Business 241-242. Beginning and Intermediate Shorthand. . . . .	3	3
Business 345. Advanced Typewriting . . . . .	3	—
Economics 201-202. Principles of Economics . . . . .	3	3
English 201-202. Western World Literature		
or		
English 203-204. English Literature . . . . .	3	3
Psychology 201. General Psychology . . . . .	—	3
	<hr/>	<hr/>
	15	15
<i>Third Year</i>		
Business 232. Principles of Management . . . . .	3	—
Business 323-324. Business Law . . . . .	3	3
Business 325. Business Writing . . . . .	3	—
Business 341. Advanced Shorthand . . . . .	3	—
Business 343. Office Machines . . . . .	—	3
Laboratory Science . . . . .	4	4
Sociology 201. General Sociology . . . . .	—	3
Approved Elective . . . . .	—	3
	<hr/>	<hr/>
	16	16

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Fourth Year</i>		
Business 301. Business Statistics .....	3	—
Business 349. Office Procedures .....	—	3
Business 360. Data Processing Principles .....	3	—
Business 438. Office Management .....	3	—
Economics 307. Money and Banking .....	3	—
Elective in Business or Economics (upper level) .....	—	3
Approved Electives (upper level) .....	3	9
	15	15

### Curriculum in General Secretarial

This two-year program, leading to an associate in science degree, is designed to prepare students for secretarial positions in business.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
Business 101. Decision Mathematics .....	3	—
Business 121. Introduction to Business .....	3	—
Business 145-245. Beginning and Intermediate Typewriting <sup>6</sup> .....	3	3
Business 203. Principles of Accounting .....	—	3
Business 241-242. Beginning and Intermediate Shorthand <sup>6</sup> .....	3	3
English 101-102. Composition and Literature .....	3	3
Speech 121. Effective Speech .....	—	3
	15	15
<i>Second Year</i>		
Business 323. Business Law .....	3	—
Business 325. Business Writing .....	—	3
Business 341. Advanced Shorthand .....	—	3
Business 343. Office Machines .....	3	—
Business 345. Advanced Typewriting .....	3	—
Business 349. Office Procedures .....	—	3
Economics 201-202. Principles of Economics .....	3	3
Psychology 201. General Psychology .....	3	—
Elective .....	—	3
	15	15

<sup>6</sup> If a student passes the typewriting and shorthand placement tests, he should select from the following electives: Business 102, 204, 232, 272, 324, and 438.

### Curriculum in Legal Secretarial

This two-year program, leading to an associate in science degree, is designed to prepare students for secretarial positions in law offices, both public and private.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
Business 101. Decision Mathematics .....	3	—
Business 121. Introduction to Business .....	3	—
Business 145-245. Beginning and Intermediate Typewriting <sup>7</sup>	3	3
Business 203. Principles of Accounting .....	—	3
Business 241-242. Beginning and Intermediate Shorthand <sup>7</sup>	3	3
English 101-102. Composition and Literature .....	3	3
Psychology 201. General Psychology .....	—	3
	15	15
<i>Second Year</i>		
Business 323-324. Business Law .....	3	3
Business 325. Business Writing .....	3	—
Business 341. Advanced Shorthand .....	3	—
Business 341L. Legal Dictation .....	—	3
Business 343. Office Machines .....	—	3
Business 345. Advanced Typewriting .....	3	—
Business 349. Office Procedures .....	—	3
Economics 201-202. Principles of Economics .....	3	3
	15	15

### Curriculum in Medical Secretarial

This two-year program, leading to an associate in science degree, is designed to prepare students for work as assistants or secretaries in doctors' offices, hospitals, and other medical institutions.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
Business 101. Decision Mathematics .....	3	—
Business 121. Introduction to Business .....	—	3
Business 242-341. Intermediate and Advanced Shorthand*	3	3
Business 245-345. Intermediate and Advanced Typewriting*	3	3
Biology 103-104. Anatomy and Physiology .....	3	3
English 101-102. Composition and Literature .....	3	3
	15	15

<sup>7</sup> If a student passes the typewriting and shorthand placement tests, he should select from the following electives: Business 102, 204, 438 or Speech 121.

\* A student who enters without qualifying for Business 245, Intermediate Typewriting, and Business 242, Intermediate Shorthand, may complete this program by attending an additional semester or a summer session.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Second Year</i>		
Business 203. Principles of Accounting .....	3	—
Business 323. Business Law .....	3	—
Business 325. Business Writing .....	—	3
Business 341M. Medical Dictation and Procedures .....	3	—
Business 349. Office Procedures .....	—	3
Chemistry 105. Survey of Chemistry .....	—	4
Economics 201-202. Principles of Economics .....	3	3
Psychology 201. General Psychology .....	3	—
Approved Elective .....	—	3
	15	16

## ECONOMICS

HARMON H. HAYMES, Chairman of the Department

James H. Alexander / Larry G. Beall / Robert T. Cone / Clinton S. Ferguson  
 Spencer R. Gervin / George E. Hoffer / Marvin L. Ingram  
 George W. Jennings / Anwar Kacyra / D. M. O'Toole / Max Moszer  
 Peter Pogany / James M. Savarese / A. M. Sharshar / Eleanor Snellings  
 George R. Tyler

The program leading to the B.S. degree in economics is designed to equip students for graduate work in this field of study as well as to provide a broad liberal arts background for students who wish to seek positions in business upon completion of the bachelor's degree. This program also provides courses in economics to meet the needs of students in other curricula offered by the University, particularly those offered by other departments of the school of business. Candidates for the B.S. degree in economics must complete not less than 33 credits nor more than 42 credits in economics.

### Curriculum in Economics

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
Business 101-102. Decision Mathematics .....	3	3
Business 203-204. Principles of Accounting .....	3	3
English 101-102. Composition and Literature .....	3	3
History, Political Science, or Sociology .....	3	3
Modern Language, Computer Science, or Mathematics.....	3	3
Physical Education .....	1	1
	16	16

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Second Year</i>		
Economics 201-202. Principles of Economics . . . . .	3	3
English 201 or 203 or 205 and English 202 or 204 or 206 . . . . .	3	3
Modern Language, Computer Science, or Mathematics . . . . .	3	3
Physics, Chemistry, or Biology . . . . .	4	4
Psychology 201. General Psychology . . . . .	3	—
Approved Elective . . . . .	—	3
Physical Education . . . . .	1	1
	17	17

*Third Year*

Business 301. Business Statistics . . . . .	3	—
Business 323-324. Business Law . . . . .	3	3
Business 412. Statistical Method . . . . .	—	3
Economics 301. Microeconomic Theory . . . . .	3	—
Economics 305. Public Finance—State and Local or Economics 306. Public Finance—Federal . . . . .	—	3
Economics 307. Money and Banking . . . . .	—	3
Economics 309. International Trade . . . . .	3	—
History/Economics 319. Economic History of the U.S. . . . .	—	3
Approved Elective . . . . .	3	—
	15	15

*Fourth Year*

Business 411. Financial Management . . . . .	3	—
Business 415. Investments . . . . .	—	3
Economics 402. Business Cycles and Forecasting . . . . .	—	3
Economics 407. Macroeconomic Theory . . . . .	—	3
Economics 421. Government and Business . . . . .	3	—
Economics 431. Labor Economics . . . . .	3	—
History, Political Science, or Sociology . . . . .	3	3
Approved Electives . . . . .	3	3
	15	15

**INFORMATION SYSTEMS**

NEIL J. HUMPHREYS, Acting Chairman of the Department

H. Leon Adkison / Edwin E. Blanks / Robert P. DuVernay, Jr.  
 Joyce T. Forrest / Clarence Guidry / A. Lee Hall / Edward Meharg  
 Lois E. Parker / Richard H. Robertson / Linda P. Scott / W. Price Wood

This program, leading to an associate in science degree, consists of a sequence of courses designed to prepare students for position in data processing installations. Persons desiring admission to this program must make a satisfactory score on the programmer's aptitude test (PAT).

**Curriculum in Information Systems**

		<i>Credits</i>	
		<i>1st</i>	<i>2nd</i>
		<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>			
Business 101-102.	Decision Mathematics .....	3	3
Business 161-162.	Functional Writing Principles .....	3	3
Business 163-164.	Computer Programming .....	3	3
Business 203-204.	Principles of Accounting .....	3	3
English 101-102.	Composition and Literature .....	3	3
		15	15
 <i>Second Year</i>			
Business 121.	Introduction to Business .....	3	—
Business 261-262.	Business Systems Analysis and Design	3	3
Business 263-264.	Advanced Computer Programming ....	3	3
Business 266.	Data Processing Field Project .....	—	3
Business 268.	Data Processing Installation Supervision ...	—	3
Business 301.	Business Statistics .....	—	3
Business 325.	Business Writing .....	3	—
History, Political Science, or Economics	.....	3	—
		15	15

**MARKETING**

BOBBY R. FERGUSON, Acting Chairman of the Department

Donald Bowles / Jane S. Cromartic / Clyde M. Thompson

Marketing courses are offered as a service to students in other departments. Students who wish to take more than the usual number of courses in marketing are advised to consult with the chairman of the marketing department.

**RETAILING**

ALVIN K. WELZEL, Acting Chairman of the Department

Joseph A. Binford / M. Dean Dowdy / Faye C. Honeycutt  
Freyda M. Lazarus / Kathryn M. McGeary

The purpose of this program is to prepare young men and women for positions at the executive level in large and small stores in the following major areas: buying, store management, control, sales promotion, and personnel. Course offerings provide studies in theories plus current and realistic practices. Store executives and other Richmond businessmen are frequently invited as guest speakers in courses. Many field trips are planned as extensions of class work.

**Curriculum in Retailing**

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
Art Education 121-122. Principles of Art .....	2	2
Business 101-102. Decision Mathematics .....	3	3
English 101-102. Composition and Literature .....	3	3
Retailing 107-108. Current Retail Practices .....	1	1
History, Political Science, or Sociology Electives.....	3	3
Electives .....	3	3
Physical Education .....	1	1
	<hr/>	<hr/>
	16	16
<i>Second Year</i>		
Business 232. Principles of Management .....	3	—
Business 272. Principles of Marketing .....	—	3
Economics 201-202. Principles of Economics .....	3	3
English 201 or 203 or 205 and		
English 202 or 204 or 206 .....	3	3
Psychology 201. General Psychology .....	—	3
Retailing 220. Procedures in Store Operations .....	3	—
Electives .....	3	3
Physical Education .....	1	1
	<hr/>	<hr/>
	16	16
<i>Third Year</i>		
Business 203-204. Principles of Accounting .....	3	3
Business 301. Business Statistics .....	3	—
Business 360. Data Processing Principles .....	—	3
Retailing 319-320. Buying Problems and Procedures.....	3	3
Business or Economics Electives .....	3	3
Electives (300-400) .....	3	3
	<hr/>	<hr/>
	15	15

	<i>Credits</i>		
	<i>1st</i>	<i>2nd</i>	
	<i>Sem.</i>	<i>Sem.</i>	
<i>Fourth Year</i>	<i>Block</i>		
	<i>A</i>	<i>B</i>	
Business 473. Marketing Management . . . . .	—	—	3
Business 474. Introduction to Marketing Research . . . . .	—	—	3
Retailing 405. Retail Training Methods . . . . .	3	—	—
Retailing 407. Directed Retailing Experience . . . . .	—	4	—
Retailing 410. Retail Sales Promotion . . . . .	3	—	—
Retailing 420. Trends and Problems in Retailing . . . . .	—	—	3
Retailing 426. Merchandising . . . . .	3	—	—
Retailing Elective . . . . .	—	—	3
Electives (300-400) . . . . .	3	—	3
	16		15

**COMBINED DEGREE IN BUSINESS AND LAW**

ALEXANDER C. MURRELLE, Advisor

A broad education in economics, accounting, finance, corporate organization, taxation, labor economics, and other fields has become increasingly important to the lawyer. A student can earn both the bachelor of science degree and the bachelor of law degree in a period of six years. The school of business offers such a combined curriculum in business and law in cooperation with accredited law schools. The first three years of the program are offered at the University. Students taking this combined program complete the first three years of a specified curriculum in the school of business.

It is the responsibility of the student to see that he completes the requirements for admission to the law school that he expects to attend. The University can give no guarantee as to the acceptance of any individual student by the law school to which he applies.

When a student has completed the specified three years of work in the school of business and has successfully completed two years of work at an accredited law school, the University will grant the bachelor of science degree in business. The dean of the law school in question must certify that the student is eligible for admission to the third year of work in that school.

**GRADUATE PROGRAM IN BUSINESS**

The school of business offers graduate work leading to the degree of master of science in business. The program is a professional one designed to prepare candidates for responsible participation in business, industry, government, and education. Details of the program are given in a separate gradu-



ate bulletin which will be sent upon request. Write Dr. J. Kenneth Roach, Director of Graduate Studies, School of Business, Virginia Commonwealth University, Academic Center, Richmond, Virginia 23220.

## COMPUTER CENTER

The facilities of the computer center are available for use in undergraduate and graduate instruction and research. Students interested in a general background in electronic data processing will find related courses taught within the school of business. The programming languages, consisting of EasyCoder, Fortran, and COBOL are used by the administrative staff.

The computer center is located in the basement of the Gymnasium Building, 819 West Franklin Street. A Honeywell 200 computer system, along with peripheral equipment for punching, reproducing, and sequencing cards is utilized by both the students and the administration. Primary storage of the computer is 20,000 characters with secondary storage of four magnetic tape drivers.

## MANAGEMENT CENTER

RAY M. AYRES, Acting Chairman

E. Cofer Loomer / Virgil C. Mansfield

The management center serves area business and industry through short-term courses, workshops, and seminars. Instruction is designed to meet specific educational and skill development needs as they arise.

Staff members work with area business and industry in planning and administering training courses designed to improve employee development and performance. Instruction is offered either at the business location or at Virginia Commonwealth University.

Regular offerings include seminars on investments, family finance, industrial relations, secretarial and clerical procedures, medical and legal secretarial procedures, and courses in supervisory and management training and statistical quality control. They also include marketing management and operations courses; seminars for trade and professional associations, wholesale and direct selling firms, hotel management personnel, and numerous other sales and marketing organizations.

## COURSES IN ADVERTISING

**Advertising 101 Principles of Advertising** Both semesters; 3 lecture hours. 3 credits. • A survey of all forms of advertising; principles of layout copy; production methods; campaign preparation; media selection.

**Advertising 106 Advertising Production** Second semester; 3 lecture hours. 3 credits. • Various production methods are studied to determine their specific applications to advertising material. Field trips to production plants are included.

**Advertising 201 Advertising Media Selection** First semester; 3 lecture hours. 3 credits. • A study of media terminology and mathematics, including an analysis of retail and general rate structure in all media.

**Advertising 202 Advertising Communication** Second semester; 3 lecture hours. 3 credits. Prerequisite: Advertising 101. • Principles of verbal and visual communication in creating and translating advertising ideas into print and broadcast terms. Study of aesthetic, emotive, and informative appeals.

**Advertising 301 Consumer Behavior** First semester; 3 lecture hours. 3 credits. Prerequisite: Advertising 202. • A study of advertising as a social institution and a communication process. Incorporates concepts developed in the behavioral sciences as means of explaining consumer motivation and behavior.

**Advertising 303 Creative Strategy** First semester; 3 lecture hours. 3 credits. Prerequisite: Advertising 202. • Development of creative strategies to accomplish advertising objectives. Students develop and defend campaign themes and message ideas, including print layouts and television storyboards.

**Advertising 304 Media Strategy** Second semester; 3 lecture hours. 3 credits. Prerequisite: Advertising 303. • Development of media strategies to accomplish advertising objective. The evaluation of media vehicles in terms of creative requirements, budget limitations, audience characteristics, and cost efficiency.

**Advertising 311-312 Retail Advertising Layout and Production** Both semesters. 3 credits. • A specific course in the preparation, placing, and proofing of retail advertising in daily newspapers and local weekly and monthly publications. Its aim is to improve the appearance, effectiveness, individuality, originality, and unity of space advertising in competition with other advertising in the periodical publications listed above. Emphasis is placed on the ingenious and creative use of accepted practical and economical layout and production facilities rather than on pure creativity.

**Advertising 313 Television and Radio Advertising** First semester; 3 lecture hours. 3 credits. • Principles and practices of successful radio-television advertising; emphasis on media research, rate structure, programming, creativity in broadcast commercials.

**Advertising 401-402 Advertising Campaigns I and II** Continuous course; 3 lecture hours. 3-3 credits. • Campaigns will be evaluated, and each student will plan one or more campaigns.

**Advertising 403 Advertising Management** First semester; 3 lecture hours. 3 credits. • Use of the problem-solving approach to management problems; advertising department organization; preparation of advertising budgets; advertising agency relations.

**Advertising 404 Current Advertising Analysis** Second semester; 3 lecture hours. 3 credits. • Discussion of current advertising campaigns and media, creative and research trends. Special attention is given to the literature of the field.

**Advertising 405 Direct Mail Planning and Production** First semester 3 credits. • A study of the direct mail practices used in planning, creating, and scheduling effective direct mail advertising.

**Advertising 409, 410 Sales Promotion by Manufacturers and Media** Semester courses. 3 credits. Prerequisite: Advertising 409 or equivalent for Advertising 410. • Describes and analyzes sales promotion on three distinct levels: between a manufacturer, his distributors, and dealers, contact between a manufacturer and the consumer of his products, activities within a company's own marketing division which supplement personal selling and advertising. Merchandising activities and aids of all media are covered.

**Advertising 411 Advertising Media Workshop** Second semester. 3 credits. Prerequisite: Advertising 201 or permission of the instructor or the department chairman. • The application of media principles, research, and techniques in the evaluation and selection of consumer and trade media. Students will develop total media plans with objectives, strategy, rationale, schedules, and budgets.

**Advertising 418 Seminar in Economic, Social, and Legal Aspects of Advertising** Second semester. 3 credits. • An examination of the role of advertising in modern life in America in light of historical and recent development in advertising and distribution.

**Advertising 421 Tourist Advertising and Promotion** First semester. 3 credits. • A study of advertising and sales promotion principles and practices used in planning and executing programs in the tourist industry, the role and scope of tourist advertising by commercial firms, government agencies, trade associations, and other institutions. The course will be specifically concerned with tourist advertising and promotion in Virginia.

**Advertising 423 Industrial and Professional Advertising** First semester. 3 credits. • How industrial advertising differs from consumer advertising. Forms of industrial advertising. The industrial advertising budget. Career opportunities in industrial advertising. How professional advertising differs from consumer advertising.

## COURSES IN BUSINESS

**Business 101-102 Decision Mathematics** Continuous course; 3 lecture hours. 3-3 credits. • Designed to give a mathematical background necessary for the modern businessman to understand the quantitative methods of problem solving. The first semester covers applied topics in algebra, analytical geometry, and trigonometry, as well as compound interest and discounts. The second semester covers linear mathematics, elemental calculus, and probability. The emphasis is on problems from the business world.

**Business 121 Introduction to Business** Both semesters; 3 lecture hours. 3 credits. • This course is designed to develop elementary concepts in the major areas of business. The student learns how business functions, the institutions of business, the relationship of business and government, and at the same time acquires a business vocabulary. The course should also assist students in making an intelligent choice of a business career.

**Business 145 Beginning Typewriting** Both semesters; 3 lecture hours. 3 credits. • Students learn touch typewriting and develop speeds of from 25 to 40 words per minute. This course also includes the development of skill in typing correct letter forms, manuscript forms, and simple statistical work.

**Business 161-162 Functional Wiring Principles** Continuous course; 3 lecture hours. 3-3 credits. • This course is designed to provide a foundation for detailed study in the major areas of data processing. The card punch, sorter, reproducing punch, and tabulator will be discussed with emphasis on their use in accounting and record keeping. Laboratory exercises involving planning and wiring a range of unit record equipment will be completed.

**Business 163-164 Computer Programming** Continuous course; 3 lecture hours. 3-3 credits. • The basic concepts of digital computers will be developed in this course. Topics covered will include central processing unit, storage devices, arithmetic unit, logic ability, block diagramming, and principles of stored programming. Laboratory sessions will be used to solve case problems on basic card systems.

**Business 203-204 Principles of Accounting** Continuous course; 3 lecture hours. 3-3 credits. • This is a basic course in accounting, presenting all the steps in the bookkeeping cycle as applied to single proprietorships, partnerships, and corporations.

**Business 232 Principles of Management** Both semesters; 3 lecture hours. 3 credits. • A course designed to enable students to understand and apply the basic principles relating to the efficient management of an organization.

**Business 241-242 Beginning and Intermediate Shorthand** Continuous course; 3 lecture and 2 laboratory hours. 3-3 credits. Prerequisite: satisfactory completion of shorthand placement test or Business 241 for enrollment in Business 242. • A course in shorthand theory and dictation with an introduction to transcription. At the end of the second semester, a minimum dictation speed of 90 words per minute for five minutes with 95 percent accuracy is attained for a grade of "C".

**Business 245 Intermediate Typewriting** Both semesters; 3 lecture hours. 3 credits. Prerequisite: Business 145. • Includes development of typewriting speed and accuracy and the application of typewriting to business papers. Students develop speeds of from 40 to 55 words a minute.

**Business 261-262 Business Systems Analysis and Design** Continuous course; 3 lecture hours. 3-3 credits. • Designed to guide the student through the three stages in the evolution of a system: (1) analysis of present information flow, (2) system specification and equipment selections, and (3) implementation of the system. The detailed steps of each phase of systems design are shown in relation to the over-all study.

**Business 263-264 Advanced Computer Programming** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: Business 163-164 or permission of instructor. • The principles presented in Business 163-164 are employed in this course. Advanced input-output media and logic decision techniques will be emphasized. Laboratory sessions will be used to solve magnetic tape and random access problems.

**Business 266 Data Processing Field Project** Second semester; 3 lecture hours. 3 credits. • Primarily designed to give the student an overview of practical data processing. The project will involve the student in a real problem emanating from an actual data processing situation

**Business 268 Data Processing Installation Supervision** Second semester; 3 lecture hours. 3 credits. • The student will be given concrete examples of the steps taken in problem definition, problem analysis, solution development, and solution application. Emphasis is placed on management planning in the data processing installation and the methodology of supervision and control.

**Business 272 Principles of Marketing** Both semesters; 3 lecture hours. 3 credits. Prerequisite: Economics 201. Functions, institutions, and basic problems in marketing goods and services in our economy.

**Business 301 Business Statistics** Both semesters; 3 lecture hours 3 credits. Prerequisites: Business 101-102 and junior standing. • Basic methods of collecting and presenting data are introduced. Analysis of data is studied by the calculation of index numbers, central tendency, and dispersion. Course includes an introduction to sampling and probability.

**Business 303-304 Intermediate Accounting** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: Business 203-204. • A review of the accounting cycle and accounting statements. Problems in asset, liability, and net worth accounts are studied. Other topics include correction of statements and books, statement of application of funds, and analysis of balance sheet and profit and loss statements.

**Business 315 Personal Finance** Semester course; 3 lecture hours . 3 credits. • Designed to assist families and individuals in the complex financial decisions which they must make. Units of instruction include income and expenditure, credit, borrowing, banking, saving, insurance, home buying, investment, and estate planning.

**Business 323-324 Business Law** Continuous course; 3 lecture hours. 3-3 credits. • Designed to aid the student in understanding fundamentals of the law applicable to business activities. The branches studied include contracts, negotiable instruments, sales, agency, partnership, corporations, bankruptcy, and others.

**Business 325 Business Writing** Both semesters; 3 lecture hours. 3 credits. Prerequisite: English 101-102. • The solution of representative business problems through the writing of letters and reports.

**Business 331 Personnel Management** First semester; 3 lecture hours. 3 credits. Prerequisite: Business 232 or permission of the instructor. • An examination of basic problems of employee-management relations; process of employment, selection, and placement; wage levels and methods; job studies and descriptions; training methods and programs; and employee rating systems.

**Business 341 Advanced Shorthand and Transcription** Both semesters; 3 lecture and 2 laboratory hours. 3 credits. Prerequisites: Business 242 and

Business 345 or satisfactory completion of shorthand and typewriting placement tests. • This course develops dictation speeds from 100 to 120 words a minute and transcription speeds from 20 to 25 words a minute.

**Business 341L Legal Dictation and Transcription** Second semester; 3 lecture hours. 3 credits. Prerequisite: Business 341. • This course includes the learning of a legal vocabulary and the taking and transcribing of legal dictation. The course is designed for secretarial students who desire specialized training in the legal field.

**Business 341M Medical Dictation and Office Procedures** Semester course; 3 lecture hours. 3 credits. Prerequisite: Business 341. • Medical vocabulary, dictation, and office procedures for secretaries.

**Business 343 Office Machines** Semester course; 5 laboratory hours. 3 credits. Prerequisites: Business 101 and Business 145. • Designed to acquaint the student with all types of office machines and their appropriate use in business organizations of different sizes as well as to develop skill in the use of these machines. Admission to this class is restricted to business education and office administration majors.

**Business 345 Advanced Typewriting** Both semesters; 3 lecture hours. 3 credits. Prerequisite: Business 245 or satisfactory completion of typewriting placement test. • Students develop maximum typewriting speed and accuracy for sustained periods of time. Advanced typewriting problems and production speed are emphasized.

**Business 345L Typewriting Laboratory** Both semesters; 2 laboratory hours. 1 credit. • The application of an advanced typewriting skill to selected typewriting problems. To be taken only in conjunction with Business 345 or with approval of head of the department.

**Business 347-348 Medical Office Procedures** Semester courses; 2 lecture hours. 2-2 credits. • Sponsored by the Richmond Association of Medical Assistants. Medical information for the medical assistants or the medical secretary, medico-legal problems, medical office management, medical economics, laboratory procedures, review of English grammar, effective letter-writing. In-service for those planning to enter the field.

**Business 349 Office Procedures** Both semesters; 3 lecture hours. 3 credits. • Designed for secretarial students to provide a knowledge of duties and correct office procedures required by an efficient business organization.

**Business 353 Introduction to Business Teaching** Both semesters; 3 lecture hours. 3 credits. • Provides a detailed examination of the principles and problems of business education on the secondary level.

**Business 360 Data Processing Principles** Both semesters; 3 lecture hours. 3 credits. • An introduction to the use of automated data processing equipment for business problem solving. The student will learn how data are recorded, manipulated, and then reported by various input-output devices. Uses of the punched card for both unit record equipment and computers will be discussed. ADP equipment will be demonstrated and used.

**Business 361 Computational Programming** Both semesters; 3 lecture hours. 3 credits. • A study of the use of computers to solve quantitative problems. Emphasis is given to a computational programming language with the intent of making the computer a useful tool in the student's major field.

**Business 371 Transportation** Second semester; 3 lecture hours. 3 credits. Prerequisite: Business 272. • Impact of intercity transportation systems on society. Emphasis on modal differences in development, economic characteristics, and regulation.

**Business 372 Demand Creation** First semester; 3 lecture hours. 3 credits. Prerequisite: Business 272. • The role of personal and non-personal communications in the marketing process and the planning and integration of promotional programs.

**Business 373 Advertising Management** Second semester; 3 lecture hours. 3 credits. Prerequisite: Business 372 or permission of instructor. • Analysis of field advertising, purposes, techniques, media, organization, and role of research; economic and social aspects of advertising.

**Business 401-402 Cost Accounting** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: Business 203-204. • A study of the principles of job order and process cost accounting and the special problems relating to job order and process cost accounting.

**Business 403-404 Advanced Accounting** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: Business 303-304. • An advanced course to present problems in parent and subsidiary accounting, consolidated balance sheets and income statements, consolidations and mergers, insurance, statement of affairs, statements of realization and liquidation, and estates and trusts.

**Business 405 Tax Accounting** First semester; 3 lecture hours. 3 credits. Prerequisite: Business 203-204. • After a survey of the development of income tax legislation and the concept of taxable income, this course examines in detail the present Federal Income Tax Law and develops the accounting principles and procedures involved in the preparation of tax returns for individuals and corporations.

**Business 406 Auditing** Second semester; 3 lecture hours. 3 credits. Prerequisite: Business 403-404. • The work of the public accountant in investigating, interpreting, and appraising accounting records. An analysis of the accuracy, appropriateness, and soundness of the accounting principles employed is made in order that one may be able to apply the methods and procedures followed in conducting an audit.

**Business 407 Purchasing: Industrial, Commercial, Institutional** First semester; 3 lecture hours. 3 credits. • Purchasing policies and problems designed to meet the needs of marketing, production, engineering, and general administrative functions, including control, accounting, performance evaluation, and various other related activities. Subject matter presented from a management point of view.

**Business 408 C.P.A. Problems** Second semester; 3 lecture hours. 3 credits. Prerequisite: Business 403-404. • An intensive analysis of the theory and

practice of accounting through the solution and discussion of C.P.A. examination problems.

**Business 409 Governmental Accounting** First semester; 3 lecture hours. 3 credits. Prerequisite: Business 203-204. • Accounting principles and procedures pertaining to governmental agencies; governmental classification of receipts and expenditures; preparation of reports; budgeting and operation of fund accounts.

**Business 410 Advanced Tax Accounting** Second semester; 3 lecture hours. 3 credits. Prerequisite: Business 405. • Materials are carefully selected to present complex tax problems common to the sole proprietorship, partnership, and corporation. Particular emphasis is given to advanced tax problems peculiar to the corporation.

**Business 411 Financial Management** First semester; 3 lecture hours. 3 credits. Prerequisite: Business 203-204. • The fundamental principles of finance as applied to various forms of business organization. Included are such topics as promotion, sale of stocks and bonds; working capital, surplus, and dividend policies; consolidations; and reorganizations.

**Business 412 Statistical Method** Both semesters; 3 lecture hours. 3 credits. Prerequisite: Business 301. • Course includes additional study of sampling and probability. Other topics include tests of significance, correlation, index number construction, and chi-square as these topics have application to business and economic problems.

**Business 414 Accounting Seminar** Second semester; 3 lecture hours. 3 credits. Prerequisites: Business 304 and 6 semesters hours in accounting on the junior or senior level. • Current periodical literature provides the framework for detailed study; oral and written reports.

**Business 415 Investments** Second semester; 3 lecture hours. 3 credits. Prerequisite: Business 411 or permission of instructor. • Designed to acquaint the student with the characteristics of the various types of investment securities, the organization and operation of the securities markets, sources of financial information and the principles and problems of investment management.

**Business 421 Small Business Management** Second semester; 3 lecture hours. 3 credits. • The importance, problems, and requirements of small businesses; establishing policies for prices, promotion, control, and credit; regulations, taxes, records, and record-keeping.

**Business 422 Real Estate** Second semester; 3 lecture hours. 3 credits. Prerequisites: Economics 201-202 and Business 323-324 or permission of instructor. • Designed to present the economic factors influencing the real estate business and to afford information regarding principles it follows. Subjects considered include contracts, deeds, evaluation, financing, and development of sub-divisions.

**Business 423 Insurance** First semester; 3 lecture hours. 3 credits. Prerequisite: Economics 201-202 or permission of instructor. • Designed to aid in understanding fundamentals of insurance. Subjects included are



kinds of life insurance policies, fire and casualty insurance, bonding, workmen's compensation, and rate systems.

**Business 424 Property and Liability Insurance** Second semester; 3 lecture hours. 3 credits. Prerequisite: Business 423 or permission of instructor. • Study of coverage and rating in the following areas of insurance: fire, marine, automobile, general liability, workmen's compensation, theft, and fidelity; and study of surety bonds.

**Business 425 Real Estate Appraisal and Investment** Second semester; 3 lecture hours. 3 credits. • Designed for persons who have completed a course in principles of real estate or its equivalent. The course will provide more intensive treatment of some of the topics discussed in Business 422 and give particular attention to the problems of real estate appraisal.

**Business 426 Life and Health Insurance** First semester; 3 lecture hours. 3 credits. • Study of the function and uses of life insurance, health insurance, and annuities; and study of the Social Security System.

**Business 427 Labor Law** First semester; 3 lecture hours. 3 credits. • Using the case method, this course will cover organization of workers, union representation, the workers' right to organize, free speech, concerted activities, employer and union unfair labor practices, process required under the National Labor Relations Act of 1947, as amended, in representation and unfair labor practice proceedings, collective bargaining, labor's economic pressures, strikes, pickets, and boycotts.

**Business 428 Advanced Labor Law** Second semester; 3 lecture hours. 3 credits. • Using the casebook method as well as guest lecturers, representing the points of view of both management and labor, this course will cover current methods of organization, counter organization, methods of management, management's rights under the National Labor Relations Act of 1947 and the Labor Management Reporting and Disclosing Act of 1959, the union's rights under the Act, unfair labor practices of both labor and management, and defense of such charges, study of current decisions concerning labor relations, and arbitration of grievance procedure.

**Business 431 Industrial Safety** See Psychology 431.

**Business 432 Industrial Management** Second semester; 3 lecture hours. 3 credits. Prerequisites: Economics 201-202 and Business 232 or permission of instructor. • Designed to analyze the problems of the industrial manager, including plant location, planning of factory buildings, materials handling and control, inspection, and supervision.

**Business 433 Job Evaluation** Second semester; 3 lecture hours. 3 credits. • The methods and techniques of obtaining job descriptions, job characteristics and measuring scales, job rating, and the awarding of wage increments.

**Business 434 Production Planning Economics** Second semester; 3 lecture hours. 3 credits. • An investigation of the principles required for decisions concerning acquisition and retirement of capital goods in manufacture. The concepts of cash flow in alternative financing methods, tax, depreciation,

replacement, and increment cost aspects of economic decision-making are emphasized.

**Business 435 Seminar in Personnel Management** First semester; 3 lecture hours. 3 credits. Prerequisite: Business 331 or permission of instructor. • A critical study of selected problems in personnel management.

**Business 436 Credits and Collections** Second semester; 3 lecture hours. 3 credits. Prerequisite: Business 203-204. • The problems and techniques of mercantile credit management. Topics presented include the use of credit instruments, functions and duties of the credit manager, sources of credit information, financial statement analysis, and the use of various aids for the collection of slow accounts.

**Business 438 Office Management** Both semesters; 3 lecture hours. 3 credits. Admission to this class is restricted to business education and office administration majors. • The planning and installing of correct office methods and systems; securing effective correspondence and stenographic work; improving mailing, filing, and duplicating methods; preparation of reports; office problems of special departments; and employee supervision and control.

**Business 443-444 Specialized Office Machines I and II** Semester course; 1 lecture hour and 2 laboratory hours. 2-2 credits. • Machines which a student can learn to operate include: electric typewriters, adding and calculating machines, both key and crank driven, ten-key calculating machines, stencil duplicators, offset duplicators, fluid duplicators, bookkeeping machines, dictating and transcribing machines.

**Business 448, 449 Professional Secretarial Training** Semester courses; 3 lecture hours. 3 , 3 credits. • Designed for secretaries who desire to broaden their educational background. Special emphasis is placed on accounting, business administration, human relations, personal adjustment, general secretarial and office procedures, letter composition, and public speaking. The year course will serve as partial preparation for the Certified Professional Secretary examination given each May by the National Secretaries Association.

**Business 453 Teaching Bookkeeping and Basic Business** Both semesters; 3 lecture hours. 3 credits. • Designed for prospective teachers of bookkeeping, general business arithmetic, and other basic business subjects. It encompasses methods of teaching these subjects and a survey of currently used textbooks and available resource material.

**Business 454 Teaching Laboratory** Both semesters; 2 laboratory hours. 1 credit. • Students will have an opportunity to observe model teaching and to participate in the teaching process. To be taken concurrently with Business 453 or Business 455.

**Business 455 Teaching Secretarial Subjects** Both semesters; 3 lecture hours. 3 credits. • Designed for prospective teachers of shorthand, typewriting, and office practices. It encompasses methods of teaching these subjects and a survey of currently used textbooks and available resource material.

**Business 456 Teaching Seminar** Both semesters; 1 lecture hour. 1 credit.  
● Designed to deal with the practical problems which arise during the student teaching experience. Only students who are enrolled in Education 486 may register for this course.

**Business 460 Data Processing Systems and Methods** Both semesters; 3 lecture hours. 3 credits. Prerequisite: Business 360. ● For management or supervisory personnel and those interested in a broader concept of integrated data processing. Applications are made to payroll, accounts receivable and payable, manufacturing control, retail store accounting, insurance, and other types of business operation.

**Business 461-462 Unit Record Equipment** Continuous course; 3 lecture hours for business education majors and business teachers only. 3-3 credits.  
● Designed to provide a working knowledge of unit record equipment including the card punch, sorter, interpreter, collator, reproducing punch, and accounting machine. Laboratory exercises involving planning for and wiring the equipment will be completed.

**Business 463-464 Digital Computer Programming** Continuous course; 3 lecture hours for business education majors and business teachers only. 3-3 credits. ● The basic concepts of digital computers. All computer devices and techniques will be discussed. A basic business computer language will be taught and used to solve business problems. Laboratory exercises involving planning for and writing program for the equipment will be completed.

**Business 467-468 COBOL Programming** Continuous course; 3 lecture hours. 3 credits. ● An introduction to and the utilization of the Common Business Oriented Language. This relatively machine-independent compiler language will be used by students to express the solutions of business-oriented problems to the computer.

**Business 472 Sales Management** First semester; 3 lecture hours. 3 credits. Prerequisite: Business 372 or permission of instructor. ● Sales department organization, planning, territories, quotas, research, training, selection, supervision, compensation of salesmen.

**Business 473 Marketing Management** First semester; 3 lecture hours. 3 credits. Prerequisite: Business 372 or permission of instructor. ● Factors affecting marketing management decisions. Demand analysis, buyer behavior, forecasting, competitive analysis; distribution structure, locational patterns; cost analysis; optimizing.

**Business 474 Marketing Research** Second semester; 3 lecture hours. 3 credits. Prerequisite: Business 372 or permission of instructor. ● Research methods applied to marketing; survey of sales forecasting; market analysis; distribution cost analysis.

**Business 475 Marketing Seminar** Second semester; 3 lecture hours. 3 credits. Prerequisite: Business 473 or permission of instructor. ● Experience in formulating, analyzing, and solving current marketing problems.

**Business 476 Industrial Marketing** First semester; 3 lecture hours. 3 credits. Prerequisite: Business 372 or permission of instructor. ● An analysis

of the marketing structure of industrial products. Product lines, channels of distribution, selling, pricing, warehousing, and wholesaling problems.

**Business 487 Quantitative Management Methods** Second semester; 2 lecture hours. 2 credits. Prerequisite: Business 412 or its equivalent. • Coverage includes application of mathematical problem-solving techniques to modern business situations, including the use of models, simulation, and game theory.

**Business 499 Management Seminar** Second semester; 3 lecture hours. 3 credits. Prerequisite: Senior standing in business management or consent of instructor. • A critical analysis of the management concept.

For the listing of graduate courses in the school of business see the **Graduate Bulletin**.

## COURSES IN ECONOMICS

**Economics 201-202 Principles of Economics** Continuous course; 3 lecture hours. 3-3 credits. • A course designed to acquaint the student with a theoretical and practical understanding of the economic institutions and problems of the American economy.

**Economics 203 Introduction to Economics** Both semesters; 3 lecture hours. 3 credits. • A survey of economic principles, institution, and problems in the United States. The course is designed to provide basic economic understanding for students who do not expect to take additional economics courses.

**Economics V211-V221-V231 Principles of Economics** Year course; 3 lecture hours. 3-3 quarter credits. • For students of engineering. See description for Economics 201-202.

**Economics 301 Microeconomic Theory** First semester; 3 lecture hours. 3 credits. Prerequisite: Economics 201-202. • Analysis of value and distribution. Supply and demand, theory of the firm, competition and monopoly. Determination of prices and wages in a market economy.

**Economics 305 Public Finance—State and Local** Both semesters; 3 lecture hours. 3 credits. Prerequisite: Economics 201-202. • A description and analysis of state and local government taxing and spending policies and practices. The course is designed to develop an understanding of state and local fiscal operations and their relationship with federal fiscal operations.

**Economics 306 Public Finance—Federal** Both semesters; 3 lecture hours. 3 credits. Prerequisite, Economics 201-202. • A survey of the principles, practices, and problems of federal finance; the nature and growth of federal expenditures; the nature and effect of various types of federal taxes; fiscal policy and administration; the public debt and its impact on the economy.

**Economics 307 Money and Banking** Both semesters; 3 lecture hours. 3 credits. Prerequisite: Economics 201-202. • A study of money, its nature, its issuance, and its control. Emphasis is on the institutional aspects of our monetary structure, especially the role of the banking system in the creation

of money and of the Federal Reserve System in the control of the money supply.

**Economics 308 Economic Geography** Second semester; 3 lecture hours. 3 credits. • A study of the world's important agricultural and mineral resources dealing principally with factors controlling regional distribution, production, transportation, and consumption.

**Economics 309 International Trade** First semester; 3 lecture hours. 3 credits. Prerequisite: Economics 201-202. • An analysis of the fundamentals of world trade, the significance of economic and geopolitical influence on exports and imports, and problems and policies relating to foreign investment.

**Economics 310 Economics and Poverty** Same as Afro-American Studies 310.

**Economics 319 Economic History of the United States** Second semester; 3 lecture hours. 3 credits. Prerequisite: Economics 201-202. • An analysis of the various economic factors that have contributed to the development of the American economy from the colonial period to the present time.

**Economics 320 Economic History of Europe** First semester; 3 lecture hours. 3 credits. Prerequisite: Economics 201-202. • Designed to give the student a broader basis for understanding current European problems by analyzing the economic factors which have contributed over the past century or more to their development.

**Economics 401 Introduction to Econometrics** Second semester; 3 lecture hours. 3 credits. Prerequisite: Business 301. • The application of statistical inference and mathematical tools to economic phenomena. Most emphasis will be placed on regression analysis as applied to the structure of economic models.

**Economics 402 Business Cycles and Forecasting** Both semesters; 3 lecture hours. 3 credits. Prerequisite: Economics 201-202. • An examination of the nature of cyclical and other types of variations in economic activity; the measurement of economic fluctuations; analysis of the critical aspects of business cycle theory; control of business cycles; and business forecasting techniques.

**Economics 405 Managerial Economics** Summer session; 3 lecture hours. 3 credits. Prerequisite: Economics 201-202. • The application of economic analysis to managerial decision-making in relation to problems of supply and demand, prices, profits, production, and distribution. Special emphasis on the role of competition in decision making.

**Economics 407 Macroeconomic Theory** Second semester; 3 lecture hours. 3 credits. Prerequisite: Economics 307. • A general survey of national income analysis and macroeconomic theory. Detailed study of public policies affecting price levels, employment, economic growth, and the balance of payments.

**Economics 409 International Economics** Second semester; 3 lecture hours. 3 credits. Prerequisite: Economics 309. • A study of the theories of inter-

national trade and financial relationships with emphasis on the contribution of these theories to solution of current international economic problems.

**Economics 412 Regional Economics** Summer session; 3 lecture hours. 3 credits. Prerequisite: Economics 201-202. • A course to familiarize students with courses and uses of standard data on employment, income, and population and to provide an introduction to economic base theory as used in regional economics. Application of theory to make and analyze economic and demographic projections for regions in Virginia. Analysis of operation and impact of area economic development programs.

**Economics 421 Government and Business** Both semesters; 3 lecture hours. 3 credits. Prerequisite: Economics 201-202. • Designed primarily to study the many ways in which business and economic life are directed by government. Topics covered include the economics of monopoly power; the anti-trust laws, and their application and enforcement.

**Economics 431 Labor Economics** Both semesters; 3 lecture hours. 3 credits. Prerequisite: Economics 201-202. • The objective of this course is to acquaint the student with the nature and causes of labor-management problems in the United States. Subjects included are the historical background of labor movements, theories of labor movements, wage theories, theories of employment, labor legislation, collective bargaining.

**Economics 432 Manpower Economics** Summer session; 3 lecture hours. 3 credits. Prerequisite: Economics 431. • Topics to be studied include the labor force and the labor market, education as a factor in economic growth, automation and unemployment, minority manpower, womanpower, scientific and technical manpower; full employment; a comprehensive employment and manpower policy in the United States.

For the listing of graduate courses offered by the department of economics, see the **Graduate Bulletin**.

## COURSES IN RETAILING

**Retailing 107-108 Current Retailing Practices** Both semesters; 1 lecture hour. 1 credit. • An exploration of current information regarding the operation of various types of retail institutions; chain and independent stores, food stores, department stores, specialty shops, and others. Vocation information in various phases of store work is included.

**Retailing 116 Merchandising Information—Textiles** Both semesters; 3 lecture hours. 3 credits. • A study of fabric construction, finishes, and the properties of natural and man-made fibers. Actual samples of fabrics are studied to determine values to consumers in clothing and home furnishings. Laboratory fee \$7.50.

**Retailing 205 Principles of Salesmanship** Both semesters; 3 lecture hours. 3 credits. • To develop selling standards that will help those who sell do so with greater efficiency, through a creative approach, understanding buying motives, organizing sales presentations, and suggestion selling. Application of techniques through demonstrations, projects, and case studies.

**Retailing 209 Display** Both semesters; 3 lecture hours. 3 credits. • Theory and practice of the principles of display as used in retail stores and other distributive businesses.

**Retailing 212 Personnel Techniques in Distribution** 3 credits. • Study of the supervisor's role in distribution; current personnel policies and practice; the human problems in personnel relationships.

**Retailing 215 Merchandise Information—Non-Textiles** Both semesters; 3 lecture hours. 3 credits. • A study of materials used, construction, care, and government regulations of various types of merchandise such as china-ware, glass ware, silverware, leather, jewelry, furniture, and other types of home furnishings. Values and quality standards for the consumer are stressed.

**Retailing 220 Procedures in Store Operation** Both semesters; 2 lecture hours and 2 laboratory hours per week. 3 credits. • Operation and service activities as functions of store management. The areas of store location and layout, customer services, receiving and marketing, and protection are covered. Field trips to selected retail and service operations are scheduled each week.

**Retailing 317 Fashion Trends and Coordination** First semester; 3 lecture hours. 3 credits. • A study of fashion trends and the relation of fashion to merchandising, promotion, and training in retail stores. Using the changes in fashion of the current season, a technique is developed that may be applied to trends in any merchandise. A fashion show is presented as a project.

**Retailing 319-320 Buying Problems and Procedures** Continuous course; 3 lecture hours. 3 credits. • A study of problems involving initial markup, retail method of inventory, maintained markup, turnover, profit, stock sales ratios and their application to the buyer's job. Dollar and unit planning, unit control, model stocks, merchandise selection, pricing, and market procedures are emphasized and practiced with projects.

**Retailing 321, 322 Food Distribution** Both semesters. 3 credits. Prerequisite: Business 272 or permission of instructor. • Provides information about the specific practices and problems of businesses engaged in the wholesale and retail distribution of food.

**Retailing 405 Retail Training Methods** First semester; 3 lecture hours. 3 credits. • The techniques of individual and group training as applied to employees of a store. Practice is given in the preparation of teaching outlines and the application of varied training methods. Students plan and present department meetings on information and skills.

**Retailing 407 Directed Retailing Experience** First semester; 4 credits. • Two sessions of directed practical experiences in retail stores. The first requires a minimum two months of full-time work in sales or sales supporting positions during July and August just prior to the senior year. The second phase comes in November and December when students assume supervisory and junior executive responsibilities in retailing. Written projects and evaluations are presented for each segment of experience.

**Retailing 410 Retail Sales Promotion** First semester; 3 lecture hours. 3 credits. • The scope and activities of sales promotion in stores with emphasis on the coordination of advertising, display, special events, and publicity. External and internal methods of promoting business; budgeting, planning, and implementing the plan.

**Retailing 416 Retail and Marketing Research Project** Second semester; 6 weeks of research. 5 credits. • Coordinated and supervised research in retail stores and other distributive businesses solving problems designed by the stores and businesses which need study and analysis. Under the direction of an administrative executive, the students compile a complete report of facts and findings in a research project which is submitted to the university and to the store or business.

**Retailing 420 Trends and Problems in Retailing** First semester. 3 credits. • Presentation and discussion of recent trends and current pressing problems in the retail industry.

**Retailing 421 Small Retail Store Management** Second semester . 3 credits. • The importance, problems, and requirements of small retail stores. The financing, organizing, selecting location, buildings, and layout, establishing policies of personnel, pricing, promotion, credit, and control, regulations, taxes, records, and record keeping. Students work on all stages in the planning and organization of a new small store.

**Retailing 425 Retail Finance and Control** Second semester; 3 lecture hours. 3 credits. • A study of the control division of a store including planning, inventory control, expense control, credit, financing, and other control functions.

**Retailing 426 Merchandising** First semester; 3 lecture hours. 3 credits. • A study of the cycles of merchandising, analysis of past performance in departmental operating statements, all types of planning, buying, use of tools of stock management, aids to selling. Management viewpoint stresses ways of increasing sales and profit through planning and adjustment to current conditions.



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## **SCHOOL OF COMMUNITY SERVICES**

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W. R. COPPEDGE, Acting Chief Administrator

The school aims to produce a broadly educated professional person imbued with a sense of social responsibility and prepared through objective study, training, and research to perform competently both as citizen and as professional, providing human services in a complex urban environment.

The school offers the associate of arts in law enforcement and three four-year degree programs, each of which leads to a bachelor of science degree in the following fields:

Law Enforcement  
Recreation  
Social Welfare

A graduate program leading to the master of science degree in rehabilitation counseling is described in the **Graduate Bulletin**, available upon request to the director of admissions or the department of rehabilitation counseling.

Graduate study in social work is offered in the graduate school of social work.

The school of community services offers many courses which are available to students in other schools and departments.

### **LAW ENFORCEMENT**

CARROL R. HORMACHEA, Advisor

William A. Bechtel / James Hague / Sture V. Westerberg

Part time—Michael Morchower

The major objective of the department is to prepare young men and women for professional careers in law enforcement and other areas in the broad

field of criminal justice. In addition to preparation for careers at the federal, state, or local levels of law enforcement, the student is offered opportunities in industrial security and in the military service, or he may continue his studies at any of a number of universities offering graduate work in the area. The in-service police officer is offered the opportunity to enhance his professional career through further education.

Students majoring in law enforcement receive a general educational background as well as professionally-oriented courses in the major field. In no way are the offerings intended to take the place of a basic police academy or its technical courses.

The department offers the degree of associate in arts and the bachelor of science (128 semester hours). Students who wish to transfer from other institutions offering similar courses of study will be considered for admission.

**Curriculum in Law Enforcement**

**ASSOCIATE IN ARTS**

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
Biology 101-102*    General Biology .....	4	4
English 101-102.    Composition and Literature .....	3	3
Law Enforcement 209.    Introduction to Law Enforcement...	3	—
Law Enforcement 215-216.    Police Organization and Administration .....	3	3
Mathematics 105.    Basic Mathematics .....	3	—
Sociology 101.    General Sociology .....	—	3
Physical Education ** .....	1	1
Elective .....	—	3
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	17	17
Law Enforcement 340.    Criminal Investigation .....	—	3
Law Enforcement 360.    Criminal Law .....	—	3
Law Enforcement Elective .....	—	3
Political Science 201-202.    American Government .....	3	3
Psychology 201.    General Psychology.....	3	—
Psychology 304.    Developmental Psychology .....	—	3
Sociology 102.    Social Problems in the U.S. ....	3	—
Sociology 331.    Juvenile Delinquency .....	3	—
Sociology 403.    Criminology .....	3	—
Physical Education** .....	1	1
	<hr style="width: 100%;"/>	<hr style="width: 100%;"/>
	16	16

\* Another physical laboratory science may be substituted with the advisor's approval.  
 \*\* Police officers on active duty will be excused from any physical education requirement. Other students must take one credit in physical education each semester.

**BACHELOR OF SCIENCE**

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
Community Service 101. Perspectives in Community Service . . . . .	4	—
Laboratory Science . . . . .	4	4
English 101-102. Composition and Literature . . . . .	3	3
Law Enforcement 209. Introduction to Law Enforcement . . . . .	—	3
Mathematics 105. Basic Mathematics . . . . .	3	—
Political Science 201, 202. American Government . . . . .	3	3
Sociology 101. General Sociology . . . . .	—	3
Physical Education . . . . .	1	1
	<hr/>	<hr/>
	18	17
 <i>Second Year</i>		
English 201, 202. Western World Literature or		
English 203, 204. English Literature . . . . .	3	3
History 201-202. American History . . . . .	3	3
Law Enforcement 215-216. Police Organization and Administration . . . . .	3	3
Law Enforcement 340. Criminal Investigation . . . . .	3	—
Psychology 201. General Psychology . . . . .	—	3
Sociology 102. Social Problems in the United States . . . . .	3	—
Social Science Electives . . . . .	—	3
Physical Education . . . . .	1	1
	<hr/>	<hr/>
	16	16
 <i>Third Year</i>		
Business 325. Business Writing . . . . .	3	—
Law Enforcement 360. Criminal Law . . . . .	—	3
Law Enforcement 371. Criminalistics . . . . .	3	—
Law Enforcement 375. Criminal Procedure and Evidence . . . . .	3	—
Political Science 314. Constitutional Law . . . . .	—	3
Psychology 304. Developmental Psychology . . . . .	—	3
Sociology 403. Criminology . . . . .	3	—
Social Science Electives . . . . .	3	3
Elective* . . . . .	—	3
	<hr/>	<hr/>
	15	15

\* All electives are subject to the advisor's approval.

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>Fourth Year</i>		
Law Enforcement 401. Human Relations and Supervision . . .	3	—
Law Enforcement 450. Seminar in Law Enforcement . . . . .	—	3
Law Enforcement Elective . . . . .	3	—
Law Enforcement 475-476. Law Enforcement Practicum . . .	3	3
Social Science Electives . . . . .	3	3
Electives* . . . . .	3	6
	15	15

**RECREATION**

MARION N. HORMACHEA, Chairman

Mary Fortune / Lois Washer

Part time—Muriel Barbour / Jesse Reynolds / Lynn Seward  
Herbert Weisberger

The department of recreation seeks to prepare young men and women for positions of leadership in the professional field of recreation. Graduates may find career opportunities in a variety of public, private, and voluntary recreation and allied agencies, including municipal recreation departments, hospitals, churches, community centers, youth groups, correctional institutions, and the armed services. The student is prepared to pursue graduate study in the field of recreation at a number of major universities.

The student receives a broad background in the field of recreation and has the opportunity to develop major interests. A general education background complements the curriculum. The student develops program-skills through study in various areas including art, drama, crafts, music, dance, sports, and other selected activities. Many community agencies offer part-time paid training employment to qualified students in this program.

The department of recreation offers the degree of bachelor of science (126 semester hours). Upon completion of the curriculum, graduates are eligible for professional registration by the Virginia Board for Registration for Recreation Personnel.

Students wishing to transfer from other institutions will be considered for admission.

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\* All electives are subject to the advisor's approval.

**Curriculum in Recreation**

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology (or Academic Elective)	4	4
Community Service 101. Perspectives in Community Service .....	4	—
English 101-102. Composition and Literature .....	3	3
History 101-102. History of Europe or		
History 201-202. American History .....	3	3
Program Elective Skills .....	—	3
Recreation 205. Social Recreation .....	3	—
Sociology 101. General Sociology .....	—	3
Physical Education .....	—	1
	17	17
<i>Second Year</i>		
English 201, 202. Western World Literature or		
English 203, 204. English Literature .....	3	3
Political Science 201, 202. American Government .....	3	3
Psychology 201. General Psychology .....	3	—
Program Elective Skills .....	2	3
Recreation 307. Community Recreation .....	3	—
Recreation 306. Field of Recreation and Group Work.....	—	3
Recreation 211. Directed Practice in Recreation .....	—	3
Physical Education .....	2	1
	16	16
<i>Third Year</i>		
Program Elective Skills .....	3	3
Recreation 405-406. Group Leadership .....	3	3
Recreation 311. Directed Practice in Recreation .....	3	—
Recreation Electives .....	3	—
Social Science Electives .....	3	3
Electives .....	—	6
	15	15
<i>Fourth Year</i>		
Recreation 418. Administration in Recreation Agencies...	3	—
Recreation 411. Directed Practice in Recreation .....	3	—
Recreation 450. Seminar in Recreation .....	—	3
Recreation Electives .....	3	3
Social Science Electives .....	3	3
Electives .....	3	6
	15	15

**REHABILITATION COUNSELING**

**RICHARD E. HARDY, Chairman**

Craig R. Colvin / John G. Cull / John D. Hutchinson / George R. Jarrell  
J. Treacy O'Hanlan / John H. Wallace / Keith C. Wright

Part time—Robert L. Brocklehurst, Jr. / Alfons Busza / S. James Cutler  
Alfred A. Dofflemyer / James B. Funkhouser / Ann F. Houston  
Charles H. Merritt

The department of rehabilitation counseling was established in 1955 to provide graduate education in rehabilitation counseling. The graduate program in rehabilitation counseling prepares prospective rehabilitation counselors for employment in state-federal rehabilitation programs and public and private agencies. Graduates work in rehabilitation units in mental hospitals, correctional institutions, public school, private and public rehabilitation centers, sheltered workshops, adjustment centers, social service agencies, and other organizations serving persons who are mentally, emotionally, socially, or physically handicapped for employment. The program also provides advanced education for persons presently employed in agencies and facilities offering services to handicapped persons.

Emphasis is placed upon professional education for developing the skills and knowledge necessary for effective rehabilitation counseling of handicapped persons. The variety of activities performed by rehabilitation counselors necessitates a highly diversified program. In addition to the development of a broad understanding of human behavior, techniques of individual and group counseling, interpersonal relations, vocational appraisal and adjustment, caseload management, and use of community resources in facilitating the rehabilitation of mentally, emotionally, socially, and physically handicapped persons are stressed. Graduate study in this department leads to the master of science degree in rehabilitation counseling. A limited number of federal stipends are available to qualified students.

The department of rehabilitation counseling issues a separate catalogue describing degree requirements and courses offered. A copy of this catalogue will be sent on request.

**SOCIAL WELFARE**

**LOIS WASHER, Chairman**

Jean P. Boone / Jeanne Diana / Margareta Neumann\* / Ruth J. Watson  
Thomas Williamson

The department encourages the student to acquire a broad education and a professional orientation, reflecting a sense of social responsibility and a knowledge and understanding of social welfare issues, needs, and services. The student, through objective study, training, and research, may thereby be

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\* On leave 1970-71.

prepared to live effectively as an individual and a citizen; to enter employment and perform competently in social welfare positions; and to enter graduate education in social work or related areas.

The four-year curriculum leads to the degree bachelor of science in social welfare. Candidates for the degree are required to complete a minimum of 125 credits.

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
<i>First Year</i>	<i>Sem.</i>	<i>Sem.</i>
Biology 101-102. General Biology .....	4	4
Community Services 101. Perspectives in Community Services .....	4	—
English 101-102. Composition and Literature .....	3	3
History 101, 102. History of Civilization or		
History 201, 202. American History .....	3	3
Psychology 201. General Psychology .....	—	3
Sociology 101. General Sociology .....	—	3
Physical Education .....	1	—
	<hr/>	<hr/>
	15	16
 <i>Second Year</i>		
Economics 203. Introduction to Economics .....	3	—
English 201, 202. Western World Literature or		
English 203, 204. English Literature .....	3	3
Social Welfare 201. Social Welfare as an Institution .....	3	—
Social Welfare 202. The Profession of Social Work .....	—	3
Social Welfare 206. Man in Society .....	—	3
Electives .....	3	3
Elective in Political Science .....	3	—
Elective in Psychology .....	—	3
Physical Education .....	—	1
	<hr/>	<hr/>
	15	16
 <i>Third Year</i>		
Social Welfare 305-306. Interventive Methods in Social Welfare .....	3	3
Sociology 318. Social Thought or		
Sociology 402. Sociological Theory .....	3	—
Sociology 416. Statistics or		
Sociology 420. Research Methods .....	—	3
Electives in the Humanities .....	3	3
Electives in Social Science .....	9	6
	<hr/>	<hr/>
	18	15

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>Fourth Year</i>		
Community Services 411, 412. Field Experience . . . . .	3	3
Social Welfare 401. Current Issues in Social Welfare. . . . .	3	—
Electives . . . . .	3	3
Electives in the Humanities . . . . .	3	3
Electives in Social Science . . . . .	3	3
Elective in Social Welfare . . . . .	—	3
	15	15

**COURSES IN COMMUNITY SERVICES**

**Community Services 101 Perspectives in Community Services** First semester; 4 lecture hours. 4 credits. • An exploration of the interactive role of the community service worker; the humanistic values of his profession seen in the context of relevant social assumptions.

**Community Services 211, 311, 411, 412 Field Experience** Semester courses; 1 seminar hour and 5 laboratory hours. 3 credits. • Offers the student the opportunity to observe and participate within a specific service setting in the community. Under the direction of an agency field instructor, learning is systematically related to principles and theories presented in the classroom. Provides a somewhat limited career preview while allowing the student to develop and apply skills in working with people.

**COURSES IN LAW ENFORCEMENT**

**Law Enforcement 209 Introduction to Law Enforcement** Both semesters; 3 lecture hours. 3 credits. • Development of the police agency in the United States; police agencies at the federal, state, and local government levels are previewed. The interaction of the police and the public is observed.

**Law Enforcement 215-216 Police Organization and Administration** Continuous course; 3 lecture hours. 3 credits each semester. • Introduction to police organization, including records, personnel, public relations, executive control, communication, and training. A consideration of departmental structure, including prevention, traffic control, investigation, and operational functions.

**Law Enforcement 340 Criminal Investigation** Second semester; 3 lecture hours. 3 credits. • A basic theoretical approach to the investigation of crime, identifications of persons, collection and preservation of evidence, elements of legal proof in the submission of evidence, and use of crime laboratory services.

**Law Enforcement 342 Police Community Relations** Second semester; 3 lecture hours. 3 credits. • Examination of the factors contributing to friction



or cooperation between the police and the community, with emphasis on minority groups, political pressures, and cultural problems. Community organization and social responsibility of the police.

**Law Enforcement 351 Correctional Administration** 3 lecture hours. 3 credits. • History and theories in correctional administration. Various correctional systems throughout the world are compared and evaluated. The role and relationships of correctional institutions as well as parole and probation in society at large.

**Law Enforcement 352 Crime and Delinquency Prevention** Second semester; 3 lecture hours. 3 credits. • Responsibilities, organization, and functions for problems in crime prevention, plans, and programs. Citizen-cooperation programs will be discussed.

**Law Enforcement 360 Criminal Law** Second semester; 3 lecture hours. 3 credits. • The study of the elements of crimes, felonies, misdemeanors, the judicial system, enforcement of the law, apprehension of criminals, and their prosecution.

**Law Enforcement 371 Criminalistics** First semester; 3 lecture hours. 3 credits. • Studies in the scientific analysis, identification, and comparison of physical evidence.

**Law Enforcement 375 Criminal Procedure and Evidence** First semester; 3 lecture hours. 3 credits. • Principles, duties, and mechanics of criminal procedure as applied to the areas of arrest and search and seizure. Study and the evaluation of evidence and proof; kinds, degree, admissibility, and competence. The course specifically deals with rules of evidence and procedure of particular importance at the operation-level of law enforcement.

**Law Enforcement 401 Human Relations and Supervision** First semester; 3 lecture hours. 3 credits. • A study of supervision and the human problems and relations involved as well as the management of the personnel function. Included are the source of authority, organizational communication, organizational change, discipline as a positive force for control, and principles of delegation and coordination.

**Law Enforcement 407 Industrial and Retail Security** First semester; 3 lecture hours. 3 credits. • The organization and management of industrial security and plant protection units; security, police, administrative, legal, and technical problems; special problems of government contract security; survey of specialized programs in retail security; insurance and credit investigation, transportation security; private guard and alarm service, regulatory and licensing agencies.

**Law Enforcement 415 Traffic Planning and Management** First semester; 3 lecture hours. 3 credits. • Contemporary and future problems of traffic, accident investigation, traffic regulation; enforcement direction, pedestrian, intersection, and parking control; records and analysis; selective enforcement; engineering and education. Traffic law and court procedure.

**Law Enforcement 424 Society and the Law** Second semester; 3 lecture hours. 3 credits. • A study of the role of law as a formal sanction in society

with some emphasis on the function of the American system of the administration of justice.

**Law Enforcement 450 Seminar in Law Enforcement** Second semester; 3 lecture hours. 3 credits. • Required of all seniors in law enforcement. An overview of the professional aspects of law enforcement as well as specialized research and surveys in the field.

**Law Enforcement 475-476 Law Enforcement Practicum** Both semesters; 3 credits each semester. • Provides the student with experience in field situations in an approved law enforcement or related agency under the supervision of a professional supervisor.

## COURSES IN RECREATION

In addition to the basic recreation courses listed below, majors take appropriate courses in several related departments.

For recreational skills, see departments of crafts, dramatic arts, painting and printmaking, photography, sculpture, music, and physical education.

**Recreation 205 Social Recreation** First semester; 3 lecture hours. 3 credits. • The planning and conducting of social recreation activities for all age and type groups. Parties and programs as tools for the overall development of the participants. Students conduct demonstration parties for various groups.

**Recreation 211 Directed Practice in Recreation** Semester course; 1 lecture hour and 5 laboratory hours. 3 credits. • Students are assigned on an individualized basis. Agency practitioners supervise students' work and evaluate their performance.

**Recreation 306 The Field of Recreation and Group Work** Second semester; 3 lecture hours. 3 credits. • The various organizations sponsoring recreation and group programs. Employment qualifications, standards, and opportunities. Some lectures by visiting practitioners.

**Recreation 307 Community Recreation** First semester; 3 lecture hours. 3 credits. • The functions and methods of recreation services as sponsored by the community, especially public auspices. Programs and leadership.

**Recreation 310 Organized Camping** Second semester; 3 lecture hours. 3 credits. • The philosophy and methods of the organized camp program, including administrative standards. Designed to prepare students for positions in private, voluntary agency, and public summer camps.

**Recreation 311 Directed Practice in Recreation** (See Recreation 211.)

**Recreation 343 Education for Outdoor Recreation** First semester; 3 lecture hours. 3 credits. • Values and types of out-of-door programs for all age groups. Leadership and administrative principles and methods. Conservation education. Resident and day camps.

**Recreation 344 Administration in Outdoor Recreation** Second semester; 3 lecture hours. 3 credits. • Principles and practices of administration in resident and day camps, outdoor day use areas, and school programs for

outdoor education. Promotion, staff selection and supervision, budget control, insurance, construction and maintenance of facilities, and food management will be included in the principles and practices of camp administration.

**Recreation 351 Recreation for the Disadvantaged** First semester; 3 lecture hours. 3 credits. • Special recreation services available for disadvantaged and poverty groups. Emphasis will be on the planning and coordinating of recreational programs for such groups as well as the implementation of such service.

**Recreation 361 Recreation for the Ill and Handicapped** First semester; 3 lecture hours. 3 credits. • A study of special recreation services available for persons confined in hospital settings and the handicapped. Emphasis will be placed on the therapeutic value of recreation and the implementation of programs through community agencies.

**Recreation 362 Recreation in Institutional Settings** Second semester; 3 lecture hours. 3 credits. • The function and application of recreation in various institutional settings such as residence homes for children and the aged, nursing homes, hospitals, training schools, and correctional institutions.

**Recreation 370 Recreation for the Aged** Second semester; 3 lecture hours. 3 credits. • Recreation for the aged in various settings. Planning and implementing effective programs, facilities, and leadership in general community centers, as well as senior centers and retirement living complexes.

**Recreation 405-406 Group Leadership** Continuous course; 3 lecture hours. 3-3 credits. • Principles and practices of social group work. Designed to give the student an understanding of group dynamics and skill in creating a purposeful leader-group relationship. Each student should be currently acting as a leader for some group.

**Recreation 411 Directed Practice in Recreation** (See Recreation 211.)

## **COURSES IN REHABILITATION COUNSELING (Undergraduate)**

**Rehabilitation Counseling 425 Introduction to Rehabilitation** First semester; 3 lecture hours. 3 credits. • Designed to give the student a comprehensive overview of the rehabilitation process, this course emphasizes the historical, philosophical, social, and legal aspects of rehabilitation. Special attention is devoted to the professional aspects of rehabilitation. The need for rehabilitation counseling and skills and functions of the rehabilitation counselor are also covered.

**Rehabilitation Counseling 433 Directed Readings in Rehabilitation** Both semesters; 3 lecture hours. 3 credits. • For students who need strengthening in one of the core areas of rehabilitation counseling, i.e., the educational, medical, psychological, social, or vocational areas. With the assistance and supervision of a faculty member, the student undertakes a survey research project involving extensive use of library facilities. A concentration of work in the student's own individual areas of need is required. The study experi-

ence must be synthesized in a paper, and a written or oral examination before a faculty committee must be passed.

**Rehabilitation Counseling 439 Current Problems in Rehabilitation** Both semesters; 3 lecture hours. 3 credits. • A study of developments and implications resulting from rehabilitation research and demonstration activities. Agency programs related to staff improvement and expansion of rehabilitation services and facilities will also be considered as well as reviews of specific disability problems and trends in rehabilitation.

**Rehabilitation Counseling 450 Principles, Methods, and Techniques in Rehabilitation** Second semester; 3 lecture hours. 3 credits. • Basic rehabilitation concepts, e.g., handicap and disability, employability, vocational adjustment, and placement are covered. Principles of case finding rehabilitation counseling, interpretation of case findings, and the rehabilitation plan are also emphasized.

**Rehabilitation Counseling 456 Interpretative Processes in Rehabilitation Counseling** Second semester; 3 lecture hours. 3 credits. • Concerned with methodology of collection, analysis, synthesis, and effective utilization of educational, social, psychological, vocational, and medical information in the rehabilitation process.

**Rehabilitation 459 A Survey of Rehabilitation of Blind and Visually Impaired Individuals** Second semester; 3 lecture hours. 3 credits. • Designed to acquaint the student, rehabilitation counselors, and other personnel working in related areas with problems encountered in the rehabilitation of blind and partially-sighted persons.

## COURSES IN SOCIAL WELFARE

**Social Welfare 201 Social Welfare as an Institution** First semester; 3 lecture hours. 3 credits. • A critical analysis of the institution of social welfare in modern society and its relationship to other institutions. The continuum of concepts and values is considered in the light of individual and societal needs.

**Social Welfare 202 The Profession of Social Work** Second semester; 3 lecture hours. 3 credits. • A description of social work practice in modern society with an examination of the concept of the professional role. Goals, values, skills, and agency settings are examined. Emphasis is placed on the function of social work in the broad area of social welfare.

**Social Welfare 206 Man in Society** Semester course; 3 lecture hours. 3 credits. An overview of man in society as he seeks to meet his basic human needs. An examination is made of the dynamics of man's maturational and developmental processes from birth to death, synthesizing knowledge from the behavioral sciences.

**Social Welfare 301 Child Welfare** Semester course; 3 lecture hours. 3 credits. • A general introduction to the field of child welfare, including public and private services to dependent, neglected, delinquent, and physically, mentally, and emotionally handicapped children.

**Social Welfare 303 Interviewing** Both semesters; 3 lecture hours. 3 credits. • A general introduction to the nature, problems, and techniques of interviewing as conducted in various settings. Emphasis throughout will be upon the human relationships involved.

**Social Welfare 305-306 Interventive Methods** Year course; 3 lecture hours. 6 credits. • A general introduction to the nature and use of casework, community organization, and group work as the three major social work methods that seek to help people function effectively in their environment. The concepts of social change and the prevention of social dysfunction. Emphasis throughout will be upon human relationships involved.

**Social Welfare 324 The Family as a Group of Interacting Personalities** Semester courses; 3 lecture hours. 3 credits. • Values and problems of family living with emphasis on the influence of social change and the conservation of family life in modern civilization.

**Social Welfare 359 Domestic Relations and the Law** First semester; 3 lecture hours. 3 credits. • Legal principles governing marriage. Custody of children, responsibility for support of members of the family, and other legal problems.

**Social Welfare 401 Current Issues in Social Welfare** Semester course; 3 lecture hours. 3 credits. • Selected issues are examined. Resource persons from the community will offer representative viewpoints. Possible approaches which emerge are studied and evaluated.

**Social Welfare 405-406 Group Leadership** Continuous course; 3 lecture hours. 3-3 credits. • Principles and practices of social group work. Designed to give the student an understanding of group dynamics and skill in creating a purposeful leader-group relationship. Each student should be currently acting as a leader for some group.

**Social Welfare 434 Community Organization** Second semester; 3 lecture hours. 3 credits. • The nature of community organization examined carefully in the light of community trends and problems in our society. Assumption and principles.

**Social Welfare 439 Ageing in Our Society** First semester; 3 lecture hours. 3 credits. • Personal, social, and economic needs of old people. Adjustment to the process of ageing which will be of interest to persons in any age group.



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## **SCHOOL OF EDUCATION**

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**ARNOLD P. FLESHOOD, Dean**

**HOWARD L. SPARKS, Assistant Dean-Graduate Study**

**RICHARD S. VACCA, Assistant Dean-General Operation**

The school of education provides professional preparation for students planning to teach in elementary and secondary public schools—with particular emphasis placed on urban education. Programs of teacher education combine comprehensive studies in general education with professional preparation and a concentration in one or more special fields of study. Each program is designed to contribute to both the personal and professional development of the prospective teacher.

### **Degree Programs in Teacher Education**

The preparation of teachers is a joint responsibility of staff in both the subject fields and professional education, with curricula planned cooperatively by the various departments and the school of education. Bachelor of science degrees are awarded in elementary education, distributive education, secondary education, physical education, and special education. Bachelor of fine arts degrees are awarded in art education and drama and speech education, while bachelor of music education degrees are awarded to those completing requirements in music.

Students receiving their degrees in any one of the fields of study listed above are eligible to receive the collegiate professional certificate from the Virginia State Department of Education. This certificate is a five-year renewable certificate which fulfills the basic requirements for teaching in the public schools of Virginia.

State teaching scholarships are available for those who will teach at least one year in the public schools of Virginia. For information relating to scholarships or requirements for endorsement for teaching or requirements for renewal of certificates, the prospective student is advised to write or call the dean of the school of education or the division of teacher certification in the Virginia State Department of Education in Richmond. Students awarded teaching scholarships are expected to complete all requirements, including student teaching.

Graduate programs leading to the master of education degree are available in administration and supervision, counselor education, elementary education, distributive education, and special education. For details see the **Graduate Bulletin** available from the School of Education, Office of Graduate Studies, Virginia Commonwealth University, Academic Center, Richmond, Virginia 23220.

### **General Certification Requirements for Teachers**

Specific requirements for certification are included in the curriculum of each department.

**A. Humanities—12 semester hours**

English composition (required) and the balance from any of the following fields: foreign language, literature, speech, fine arts, music, and philosophy.

**B. Social Science—12 semester hours**

American history (required) and the balance from any of the following fields: history, anthropology, sociology, economics, political science, geography, and psychology.

**C. Laboratory Science and Mathematics—12 semester hours**

(At least one course in each area.)

**D. Health and Physical Education—4 semester hours or equivalent**

(At least one course in each area.)

**E. Eight additional semester credits selected from areas A, B, and C above to total 48 semester hours in general education.**

### **General Professional Requirements (See each departmental curriculum.)**

Requirements for the collegiate professional certificate include suitable courses of study in the following areas:

1. Human Growth and Development—3 semester hours\*
2. Principles of Instruction and Organization of Subject Content and Materials—6 semester hours
3. Student Teaching—6 semester hours

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\* Early childhood education teachers must take an additional three hours in Area 1, and elementary teachers must have three hours additional in either Area 1 or 2.



### **Student Requirements**

Students in the school of education are expected to complete a minimum of 124 credits and to maintain a minimum of a 2.0 average or above in all course work attempted. Students failing to meet the latter requirement at the beginning of the junior year may not be permitted to enroll in professional course work, and students failing to meet the requirement at the beginning of the senior year may not be permitted to enroll for student teaching.

Suggested courses of study for various degrees and subject fields will be found under appropriate departmental headings in this catalogue. All students planning to enter teacher preparation programs will register in the school of education although they will work with faculty advisers in the special subject fields.

### **Student Teaching**

A course in practice teaching in the public schools of Virginia is required of all students seeking a degree in education with the exception of those students who have had two or more years of successful teaching experience in the public schools. An alternate plan is available for students with such previous experience.

Secondary student teaching may be completed during an eight week period of either semester of the final year of study. During this period, the secondary student must complete a minimum of 120 hours of work and observation in the school of which 90 clock hours must be in actual teaching. The other eight weeks of the semester will consist of several block courses in education or in the student teaching field. The early childhood and elementary student teacher must complete a minimum of 200 hours of work and observation in the school of which 120 clock hours must be in actual teaching. During the student teaching semester, students also take curriculum and methods, integrated with practical experience. A senior seminar completes the 15 hour semester.

## **DISTRIBUTIVE EDUCATION**

VIVIEN KING ELY, Chairman of the Department

Howard G. Ball / Kay B. Brown / Jean M. Epps / Bettie K. Overton

The purpose of the distributive teacher education curriculum is to prepare distributive education teacher-coordinators who are members of local public school staffs and who teach marketing and related subject matter to students preparing for employment in the field of distribution.

The teacher-coordinator coordinates classroom instruction with on-the-job training or with occupationally oriented learning activities of students. He is responsible for the distributive education program in the high school. In Virginia, he is responsible for conducting an adult distributive education program in the community which he serves. The coordinator must learn to

use the cooperative plan as an organizational pattern of instruction and also to use the project plan for those students who are not employed in part-time occupational experiences.

The curriculum includes a directed occupational experience period of approximately 10 hours per week during both semesters of the sophomore year. During the summer preceding the senior year, all students are required to complete a minimum of 300 hours of occupational experience. This experience may be completed in a city of the student's choice, but must be approved by the adviser and accessible to a University faculty member for coordination visits.

The senior year is devoted to instruction and field work experiences in the professional education area. Students spend the last semester of the senior year in assigned communities throughout the state where they complete individualized field work assignments in the business community, work with a teacher-coordinator on planning, promoting, and administering an adult class, and spend a minimum of 120 classroom hours in student teaching under the supervision of a qualified distributive teacher-coordinator.

**Curriculum in Distributive Education**

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
Advertising 101. Principles of Advertising .....	3	—
English 101-102. Composition and Literature .....	3	3
Business 272. Principles of Marketing .....	—	3
Distributive Education 105-106. Education for Distribution	2	2
Laboratory Science Elective (Biology 101-102 or Chemistry 103-104) .....	4	4
Physical Education Elective .....	1	—
Retailing 205. Principles of Salesmanship .....	3	—
Retailing 215. Merchandise Information—Non-Textiles ...	—	3
	16	15
<i>Second Year</i>		
Distributive Education 201-202. Directed Occupational Experience .....	2	2
Economics 201-202. Principles of Economics .....	3	3
History 201-202. American History .....	3	3
Mathematics Elective (Mathematics 105 or 106 or Retailing 206-307) .....	3	3
Psychology 201. General Psychology .....	—	3
Retailing 209. Display .....	3	—
Retailing 212. Personnel Techniques in Distribution .....	—	3
Retailing 220. Procedures in Store Operation .....	3	—
	17	17

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Third Year</i>		
Business 360. Data Processing Principles .....	3	—
Business 474. Marketing Research .....	—	3
Business 421. Small Business Management .....	—	3
Distributive Education 302. Organization and Administration of Distributive Education .....	—	3
Education 438. High School Methods .....	3	—
Health Education 385. School Health .....	—	3
Humanities Electives .....	3	3
Psychology 305. Educational Psychology .....	3	—
Education 300. Foundations of Education .....	—	3
Elective (300-400) .....	3	—
	15	18

*Fourth Year*

Education 310. Supervised Practicum .....	—	3
Distributive Education 405. Methods of Teaching Distributive Education .....	3	—
Distributive Education 406. Techniques of Coordination....	—	3
Distributive Education 413. Distributive Education Adult Programs .....	—	3
Education 407. Audio-Visual Education .....	3	—
Education 401. Public Education .....	3	—
Education 486. Supervised Teaching-Secondary .....	—	6
Humanities Elective (300-400 level) .....	3	—
Retailing 407. Directed Retailing and Marketing Experience	3	—
	15	15

**ELEMENTARY EDUCATION**

EVELYN FULBRIGHT, Chairman of the Department

Dorothy T. Burton / Peggy W. Denton / Jack Duncan / Raymond Garguilo  
Clara G. Houghton / Alice McCartha / Elizabeth McPherson / Jane Moncure  
William Swyers

The department of elementary education provides complete pre-service preparation for teachers of children in elementary school. Programs are available which lead to certification in teaching in elementary or early childhood education programs. A special curriculum also provides for courses of study with special preparation in elementary school library work. These courses may be taken as electives and/or substituted for certain prescribed courses with the approval of the student's adviser.

**Curriculum in Elementary Education**

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology		
or		
Chemistry 103-104 .....	4	4
English 101-102. Composition and Literature .....	3	3
History 101-102. History of Europe .....	3	3
Mathematics 105-106. Basic Mathematics		
or		
Mathematics 103-104 .....	3	3
Physical Education .....	1	1
Approved Electives .....	3	3
	<hr/>	<hr/>
	17	17
 <i>Second Year</i>		
English 201-202. Western World Literature .....	3	3
History 201-202. American History .....	3	3
Economics 203. Introduction to Economics .....	—	3
Geography 301 or 302. Principles of Geography		
or		
other approved geography course .....	—	3
Psychology 201. General Psychology .....	3	—
Education 300. Foundations of Education .....	—	3
Physical Science 206. Survey of Physical Science .....	3	—
Approved Elective .....	3	—
	<hr/>	<hr/>
	15	15
 <i>Third Year</i>		
Art Education 301. Art for Elementary Teachers .....	3	—
Education 301. Human Development and Learning		
or		
Education 302. Child Growth and Development .....	3	—
Education 310. Practicum .....	1-3	—
Education 351, 428/English 351, 428. Children's Literature	3	3
Drama 308. Speech for Teachers .....	—	3
Physical Education 390. Physical Education for Teachers..	3	—
Psychology 305. Educational Psychology .....	—	3
Music 485. Music for Elementary Teachers .....	—	3
Approved Electives (300-400 level) .....	3	3
	<hr/>	<hr/>
	16-18	15

	<i>Credits</i>		<i>A</i>	<i>B</i>
	<i>1st Sem.</i>	<i>2nd Sem.</i>		
<i>Fourth Year</i>				
Education 420. Elementary School Curriculum . . . . .	—	3	—	—
Education 421. Methods in the Elementary School . . . . .	—	3	—	—
Education 426. Teaching of Reading . . . . .	3	—	—	—
Education 485. Supervised Teaching—Elementary . . . . .	—	—	—	6
Health Education 385. School and Community Hygiene. . . . .	3	—	—	—
Education 490. Seminar . . . . .	3	3	—	—
Approved Electives (300-400 level) . . . . .	9	—	—	—
		<hr/>		
	18		15	

### Curriculum in Early Childhood Education

This program is identical with the elementary education curriculum for the first two years. The third and fourth year courses are shown below.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Third Year</i>		
Art Education 301. Art for Elementary Teachers . . . . .	—	3
Education 302. Child Growth and Development . . . . .	3	—
Education 310. Practicum . . . . .	1-3	—
Education 426. Teaching of Reading . . . . .	—	3
Education 350. Early Childhood Literature . . . . .	3	—
Education 428. Children's Literature . . . . .	—	3
Drama 308. Speech for Teachers . . . . .	—	3
Physical Education 390. Physical Education for Teachers.. . . .	3	—
Psychology 305. Education Psychology . . . . .	3	—
Music 485. Music for Elementary Teachers . . . . .	3	—
Elective (300-400 level) . . . . .	—	3
		<hr/>
	16-18	15

#### *Fourth Year*

Education 415. Early Childhood Programs . . . . .	—	3
Education 416. Early Childhood Procedures . . . . .	—	3
Education 485. Supervised Teaching—Early Childhood Education . . . . .	—	6
Education 490. Seminar . . . . .	—	3
Health Education 385. School and Community Hygiene... . . . .	3	—
Approved Electives . . . . .	12	—
		<hr/>
	15	15

**HEALTH AND PHYSICAL EDUCATION**

**GEORGE B. DINTIMAN, Chairman of the Department**

Edward P. Allen / O'Dean Ampolo / Rachel N. Anderson / Bill Chambers  
 Phillip R. Coppage / Nancy Driscoll / Barney Groves / Clarence G. Jones  
 George D. Magill\* / Jude Pennington / Elizabeth Royster / Jack Schiltz

Part time—Charlotte Birindelli / Juliet Crump

The department of health and physical education has as its major responsibilities: (1) the professional preparation of physical education teachers and coaches, (2) the conduct of the service program to meet the University graduation requirement of majors in various areas, and (3) the administration of a broad intramural, extramural, and recreational sports program for all students and faculty.

The major program is designed to prepare young men and women for positions as teachers of health and physical education in elementary and secondary schools. Successful completion of the approved program leads to certification by the Commonwealth of Virginia and meets certification requirements in practically all other states.

The physical education major also prepares the student for advanced study and graduate work leading into fields of college teaching, physical therapy, research with specialization in exercise physiology, and motor learning as well as coaching in various sports.

Majors are not expected to be superior performers in all physical education activities; however, they are expected to develop considerable skill in each. All physical education majors are expected to be active members of the physical education club.

**Curriculum in Health and Physical Education for Men and Women**

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>		
Biology 101-102. General Biology . . . . .	4	4
English 101-102. Composition and Literature . . . . .	3	3
Mathematics 103-104		
or		
Mathematics 105-106. Basic Mathematics . . . . .	3	3
Physical Education 190. Introduction to Physical Education	2	—
History 201 or 202. American History . . . . .	—	3
Physical Education Activities . . . . .	4	3
	<hr/>	<hr/>
	16	16

\* On educational leave.

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
<i>Second Year</i>	<i>Sem.</i>	<i>Sem.</i>
Biology 205-206. Anatomy-Physiology . . . . .	4	4
English 201-202. Western World Literature or		
English 203-204. English Literature . . . . .	3	3
Psychology 200. General Psychology . . . . .	3	—
Psychology 305. Educational Psychology . . . . .	—	3
Education 300. Foundations of Education . . . . .	3	—
Education 301. Human Development and Learning . . . . .	—	3
Physical Education 390. Teaching Physical Education in Elementary Schools . . . . .	—	3
Physical Education Activities . . . . .	3	1
	<hr/>	
	16	17
 <i>Third Year</i>		
Economics 203. Introduction to Economics . . . . .	—	3
Health Education 382. Driver Education . . . . .	3	—
Physical Education 392. Kinesiology . . . . .	3	—
Physical Education 397. Methods in Health Education and Physical Education . . . . .	3	—
Physical Education 492. Physiology of Exercise . . . . .	—	3
Physical Education 398. Curriculum in Health Education and Physical Education . . . . .	—	3
Education 485. Supervised Student Teaching—Elementary. . . . .	—	6
Physical Education 372, 373, 374, or 375. Theory of Coaching Elective (Women—Physical Education Elective) . . . . .	2(W-3)	—
Approved Elective . . . . .	3	—
Physical Education Activities . . . . .	2	(W-1)
	<hr/>	
	16(W-17)	15(W-16)
 <i>Fourth Year</i>		
Social Science 305, 307, 310, 343, 344, 418 . . . . .	3	—
Physical Education 499. Organization and Administration of Physical Education . . . . .	3	—
Physical Education 493. Tests and Measurement in Health Education and Physical Education . . . . .	3	—
Health Education 487. Problems in Health . . . . .	—	3
Health Education 480. Safety Education and First Aid . . . . .	—	3
Physical Education 495. Corrective and Adaptive Physical Education . . . . .	—	3
Education 486. Supervised Student Teaching—Secondary. . . . .	—	6
Approved Electives . . . . .	6	—
Physical Education 372, 373, 374, or 375. Theory of Coaching Elective (Men only) . . . . .	2	—
	<hr/>	
	17(W-15)	15

### Professional Activity Courses For Majors

Each major in health and physical education is required to complete 13-14 semester hours of activity courses. Activity course requirements may be met by taking, and passing, the required courses, or in certain courses, by qualifying for exemptions. Majors are advised to see the department chairman or an adviser for a description of the exemption system.

Professional activity courses are designed to elevate skill and knowledge beyond the intermediate level of proficiency. The final three weeks are devoted to specific problems and methods of teaching each activity.

MEN		<i>Credits</i>
Physical Education 120.	Principles of Conditioning .....	1
Physical Education 130.	Gymnastics I .....	1
Physical Education 140.	Team Sports I (Football, Soccer, Speedball, Volleyball, and Basketball) .....	2
Physical Education 141.	Team Sports II (Baseball, Track, and Field)	2
Physical Education 150.	Beginning Swimming, or, passing the swimmer's safety test .....	1
Physical Education 151.	Intermediate Swimming or possession of a current life saving certificate .....	1
Physical Education 250.	Life Saving .....	1
Physical Education 230.	Gymnastics II .....	1
Physical Education 231.	Gymnastics III .....	1
Physical Education 232.	Minor Sports (Tennis, Archery, Bowling, and Badminton) .....	1
Physical Education 233.	Wrestling .....	1
Physical Education 234.	Golf .....	1
WOMEN		
Physical Education 135.	Track and Archery .....	1
Physical Education 136.	Tennis and Bowling .....	1
Physical Education 145.	Softball .....	1
Physical Education 146.	Soccer and Volleyball .....	1
Physical Education-150.	Beginning Swimming or passing of the swimmer's safety test .....	1
Physical Education 151.	Intermediate Swimming or possession of a current life saving certificate .....	1
Physical Education 250.	Life Saving .....	1
Physical Education 160.	Elementary Modern Dance .....	1
Physical Education 168.	Folk and Square Dance .....	1
Physical Education 235.	Gymnastics I .....	1
Physical Education 236.	Gymnastics II .....	1
Physical Education 238.	Golf .....	1
Physical Education 245.	Hockey .....	2
Physical Education 246.	Basketball .....	2



### **Basic Requirements in Physical Education (For non-majors in physical education)**

Students in various departments who are required to complete 2-4 semester hours of physical education may elect as many courses as desired after fulfilling the basic requirement. Each one credit course meets three hours weekly for one semester. Courses are elected from Areas I, III, IV, V, VI, and VII unless the University health service specifically advises the student to take restricted activities (Area II). All incoming freshmen in departments requiring physical education are given the swimmers' safety test and a physical fitness test (men only) during orientation week. Non-swimmers are required to complete at least one full term of swimming instruction. Students who do not meet minimum motor fitness standards are advised to complete the course in foundations of physical education.

Group and individual instruction are provided in a teaching situation designed to bring about a change in attitude, skill in carry-over activities, physical fitness, optimum health, and understanding of the human body.

Both men and women are required to purchase a regulation style uniform for participation in the program.

#### **AREA I: Foundations**

**Physical Education 101, 201 Foundations of Physical Education** 1 lecture hour and 2 laboratory hours. 1 credit. • Designed to enable the student to understand the physiological, psychological, and sociological foundations of physical activity. Understanding the effect of activity on the human organism and participating in conditioning and motor activities designed to improve fitness and movement skills is the basis of the course.

#### **AREA II: Restricted Activities**

**Physical Education 103-104, 203-204** Students with physical limitations preventing participation in the other areas are advised by the health service office to enroll in restrictive activities. Emphasis is placed on physical conditioning and development of recreational skills within the limitations imposed by the restriction.

#### **AREA III: Individual and Dual Sports (1 credit each)**

No more than two courses to be chosen from:

**Physical Education 106 Archery / Fencing (Coeducational)**

**Physical Educational 107 Badminton/Golf (Coeducational)**

**Physical Education 108 Elementary Gymnastics / Stunts and Tumbling**

**Physical Education 109 Beginning Horsemanship (Coeducational)**

**Physical Education 110 Fitness and Weight Control**

**Physical Education 111 Self Defense (Coeducational)**

**Physical Education 112 Tennis/Bowling (Coeducational)**

**Physical Education 208 Intermediate Gymnastics**

**Physical Education 209 Intermediate Horsemanship (Coeducational)**

**Physical Education 212 Advanced Tennis (Coeducational)**

**AREA IV: Team Sports (1 credit each)**

No more than one course to be chosen from:

**Physical Education 115 Cultural Activities of Other Lands—rugby, cricket, jai alai (men)**

**Physical Education 116 Field Hockey/Volleyball (Women)**

**Physical Education 117 Soccer-Speedball/Basketball**

**Physical Education 118 Softball/Track and Field**

**Physical Education 119 Touch Football/Volleyball (Men)**

**AREA V: Aquatics (1 credit each)**

The swimming placement test must be taken by all students prior to registering for a course in aquatics. A course in this area is optional if the student passes the swimmer's safety test.

**Physical Education 150 Beginning Swimming**

**Physical Education 151 Intermediate Swimming**

**Physical Education 155 Skin and Scuba Diving (Coeducational)**

**Physical Education 250 Life Saving (Coeducational)**

**Physical Education 251 Water Safety Instructor's Course (Coeducational)**

**Physical Education 256 Synchronized Swimming (Coeducational)**

**Physical Education 258 Aquatics Sports and Games**

**AREA VI: Dance (1 credit each)**

**Physical Education 160 Elementary Modern (Coeducational)**

**Physical Education 163 Beginning Ballet (Coeducational)**

**Physical Education 165 Fundamentals of Tap Dancing**

**Physical Education 168 Folk and Square (Coeducational)**

**Physical Education 260 Intermediate Modern (Coeducational)**

**Physical Education 265 Fundamentals of Ballroom Dancing** (Coeducational)

**Physical Education 356 Organization and Administration of Aquatics**

**Physical Education 358 Theory and Techniques of Competitive Diving**  
(Coeducational)

**Physical Education 360 Advanced Modern Dance** (Coeducational)

**Physical Education 362 Dance Appreciation—3 credits** (Coeducational)

#### **AREA VII: Experimental Physical Education**

**Physical Education 100, 200 Experimental Physical Education 3** laboratory hours. 1 credit. • Designed as an elective to provide students with the opportunity to serve as voluntary subjects in studies related to their specific areas of interest and/or difficulties in the general areas of exercise physiology, health problems, health and exercise attitudes, motor learning, and methodology. Studies are designed to uncover new information through controlled and experimental research as well as provide subjects with valuable insight and understanding.

#### **Faculty and Student Recreation**

Maximum use of all institutional facilities is encouraged to provide for supervised free play open to the entire student body, administration, and faculty on a periodic, scheduled basis. This voluntary program allows complete freedom of choice in all forms of acceptable leisure-time pursuits. Time schedules for recreational use of the swimming pool and gymnasium areas are posted each semester and a news letter forwarded to students and faculty concerning special programs such as the noon recreational program, jog-for-your-life, swim-for-your-life, faculty involvement in intramural athletics, and other fitness programs.

#### **Intramural Athletics**

**BARNEY GROVES, Director**

All undergraduate male and female students registered in the University who are physically eligible may participate in any intramural activity, subject to the approved intramural rules and regulations. The intramural program supplements and complements the required program of physical education as a noninstructional laboratory experience that allows students to pursue formal competition in organized tournaments. Entries are submitted to the intramural office on or prior to the closing entry date for each activity. Both team and individual point and award systems are emphasized. Tournaments are held in the following activities:

Cross Country (Annual Cobblestone Classic held prior to Thanksgiving recess with turkeys awarded to each person of the winning five-member teams), free throws, basketball, physical fitness decathlon, swimming, water polo, wrestling, volleyball, softball, and touch football.

### **Intercollegiate Athletics**

**CHARLES W. NOE**, Athletic Director

**EDWARD ALLEN**, Business Manager of Athletics

The coaching of the respective intercollegiate teams is in charge of the following individuals: baseball, Edward Allen; basketball, Charles W. Noe; women's hockey, Beth Royster; golf, Buck Jones; gymnastics, Jude Pennington; tennis, David Magill; women's tennis, Charlotte Birindelli; swimming, Jack Schiltz; wrestling, Russell Randall; crew, Donald Bowles; cross country, staff; women's basketball, Charlotte Birindelli.

All undergraduate students at Virginia Commonwealth University (Medical College of Virginia and Academic Division) are eligible to compete in these sports subject to rules and regulations governing intercollegiate competition. Freshmen and varsity athletes are not excused from required physical education and cannot meet their department requirements by being members of a varsity team. Varsity athletes who are members of a physical education class involving the same activity as the varsity sport are excused from the class during that portion of the unit.

### **SECONDARY EDUCATION**

**FRANCES M. BRIGGS**, Chairman of Department

James W. Bailey / William Beck / Vivien Ely / Thomas Holloway  
Priscilla Hynson / Gerald Llewellyn / Michael Lohr / Allan McLeod  
John Oehler / Howard Ozman / Robert Reising / Martin Tarter  
Donald Tennant / Woodie Tucker

The department of secondary education provides pre-service preparation for junior and senior high school teachers. The program meets the Collegiate Professional Certification requirements of the Commonwealth of Virginia. Students who plan to teach in the liberal arts fields of English, foreign language, history, mathematics, and science must be officially admitted to the school of education by the beginning of their junior year. All professional education courses are taken during the junior and senior years.

Block plan for secondary education in liberal arts areas:

Prerequisites: Education 300—Foundations of Education  
Education 301—Human Development and Learning

These two courses are required of all prospective secondary teachers. They should be taken in the junior year as prerequisites for the student teaching block in the senior year. The block program is divided into two eight-week sessions.

Three professional educational courses for nine semester hours credit are taken the first eight weeks followed by directed student teaching and seminar for six semester hours credit the second eight weeks. Students enrolled

in the block program will carry 15 hours credit. The block program is offered both fall and spring semesters.

Students in fields other than those noted above who are planning to teach at the secondary level should communicate with the chairman of secondary education no later than the beginning of their junior year to assure that the Virginia certification requirements are being met and that the prerequisites to student teaching are included in their programs.

#### **ART EDUCATION**

ALLAN L. LANDIS, Department Chairman

PRISCILLA HYNSON, Advisor

See page 67 for curriculum in art education

#### **BUSINESS EDUCATION**

WOODIE L. TUCKER, Department Chairman and Advisor

See page 186 for curriculum in business education

#### **DISTRIBUTIVE EDUCATION**

VIVIEN K. ELY, Department Chairman and Advisor

See page 230 for curriculum in distributive education

#### **DRAMA EDUCATION**

KENNETH CAMERON, Department Chairman

THOMAS HOLLOWAY, Advisor

See page 76 for curriculum in drama education

#### **ENGLISH EDUCATION**

ALBERT M. LYLES, Department Chairman

ALAN McLEOD, Advisor

See page 118 for curriculum in English education

#### **FRENCH EDUCATION**

WILLIAM BECK, Department Chairman and Advisor

JACK BIRMINGHAM, Advisor

See page 121 for curriculum in French education

#### **HISTORY AND SOCIAL SCIENCE EDUCATION**

F. EDWARD LUND, Department Chairman

MARTIN TARTER, Advisor

See page 124 for curriculum in history education

**MATHEMATICS EDUCATION**

WILLIAM A. GLYNN, Department Chairman

MICHAEL LOHR, Advisor

See page 129 for curriculum in mathematics education

**MUSIC EDUCATION**

DONALD B. TENNANT, Department Chairman and Advisor

See page 73 for curriculum in music education

**SCIENCE EDUCATION**

MARY E. KAPP, Department Chairman, Chemistry

LEWIS GOLDSTEIN, Department Chairman, Biology

BILLY W. SLOOPE, Department Chairman, Physics

GERALD LLEWELLYN, Advisor

See page 112 for curriculum in chemistry education

See page 105 for curriculum in biology education

See page 132 for curriculum in physics education

**SPECIAL EDUCATION**

RIZPAH WELCH, Chairman of the Department

Nancy Fallen / Ada Hill / Clayton Lewis / Thomas Lolley / Cecil Mercer

The department of special education provides pre-service preparation for teachers of educable and trainable mentally retarded children which meets the Collegiate Professional Certification requirements of the Commonwealth of Virginia. Optionally, dual preparation programs in special education of the mentally retarded—elementary education and special education of the mentally retarded—secondary education can be developed with the approval of the student's adviser and the head of the department involved.

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
<i>First Year</i>	<i>Sem.</i>	<i>Sem.</i>
Biology 101-102. General Biology .....	4	4
English 101-102. Composition and Literature .....	3	3
History 101-102. History of Europe .....	3	3
Mathematics 105-106. Basic Mathematics		
or		
Mathematics 103-104. Freshman Mathematics .....	3	3
Sociology 201. General Sociology .....	—	3
Physical Education Activities .....	1	—
Elective .....	3	—
	17	16

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Second Year</i>		
English 201-202. Western World Literature .....	3	3
History 201-202. American History .....	3	3
Economics 203. Introduction to Economics .....	3	—
Physical Science 206. Survey of the Physical Sciences....	3	—
Geography 301. Principles of Geography .....	3	—
Psychology 201. General Psychology .....	—	3
Education 300. Foundations of Education .....	—	3
Education 451. Survey of Special Education .....	—	3
Approved Elective .....	—	3
	15	18

*Third Year*

Education 301. Human Development and Learning .....	3	—
Education 420. The Elementary School Curriculum or		
Education 436. The Secondary School .....	3	—
Education 350. Early Childhood Literature or		
Education 351. Children's Literature .....	3	—
Education 310 (04). Supervised Practicum .....	1-3	1-3
Education 456. Characteristics of the Mentally Retarded...	3	—
Education 480. Human Interaction in Teaching .....	3	—
Education 426. Teaching of Reading .....	—	3
Education 461. Teaching the Mentally Retarded .....	—	3
Education 467. Language Arts for the Mentally Retarded...	—	3
Psychology 305. Educational Psychology .....	—	3
Speech 308. Speech for Teachers .....	—	3
	16-18	16-18

*Fourth Year*

	<i>A</i>	<i>B</i>	
Education 401. Pupil Evaluation .....	3	—	—
Education 490. Seminar .....	3	—	—
Health Education 305. School and Community Hygiene.	3	—	—
Education 487. Supervised Teaching .....	—	6	—
Art Education 301. Art for Elementary Teachers.....	—	—	3
Physical Education 495. Corrective and Adaptive Physical Education .....	—	—	3
Education 488 (04). Supervised Practicum-Advanced...	—	—	1-3
Music 485. Music for Elementary Teachers .....	—	—	3
Approved Elective .....	—	—	3
	15		13-15

**COURSES IN DISTRIBUTIVE EDUCATION**

**Distributive Education 105-106 Education for Distribution Semester courses;** 1 lecture hour and 2 laboratory hours. 2-2 credits. • First semester: Introduction to the teaching of distributive education. Second semester: organization and administration of local chapters of Distributive Education Clubs of America, national youth organization. Both courses include laboratory experiences in local high schools.

**Distributive Education 201-202 Directed Occupational Experience** Continuous course; 120 hours work experience each semester. 2-2 credits. • Directed practical occupational experience in a distributive business. Student's analyze the firm's organization and operation; develop an understanding of the requirements for entering, adjusting, and advancing in a chosen occupational field. Students meet in weekly seminars for application of job experiences to the distributive education high school curriculum.

**Distributive Education 302 Organization and Administration of Distributive Education** Both semesters; 2 lecture and 2 laboratory hours. 3 credits. • Duties and responsibilities, understanding policy and administering a distributive education program. Laboratory hours take place in area high schools and curriculum laboratory.

**Distributive Education 405 Methods of Teaching Distributive Education** Both semesters; 2 lecture and 2 laboratory hours. 3 credits. • The techniques of teaching distributive education and unit planning. Scheduled observation experiences and demonstration teaching.

**Distributive Education 406, 506 Techniques of Coordination** 2 lecture and 2 laboratory hours. 3 credits. • Developing cooperative relationship with resources in the community; selecting and developing training stations; placement of students and assisting job adjustment. Observation and field work in coordination activities.

**Distributive Education 413, 513 Distributive Education Adult Programs** Both semesters; 2 lecture and 2 laboratory hours. 3 credits. • The place of continuing education in the total responsibilities of the teacher-coordinator; planning, organizing, promoting, administering, and evaluating the adult program; selection and training of adult instructors. Observation and experience in adult classes in an assigned Virginia community.

**COURSES IN EDUCATION**

**Education 300 Foundations of Education** 3 lecture hours. 3 credits. • The historical, sociological, and psychological backgrounds of modern educational theories and practices. The aim of the course is to help the student develop a mature approach to a basic philosophy of education in the modern world.

**Education 301 Human Development and Learning** 3 lecture hours. 3 credits. • A study of human growth and development; the nature of learning; and observation of children in school and community situations.



**Education 302 Child Growth and Development** 3 lecture hours. 3 credits. • A study of the growth and development of the child which includes the nature of learning and ways of studying individual children.

**Education 310 Supervised Practicum** 1-3 credits. • Individually planned observations, tutorials, and small group participation in the schools and other group situations involving children. Includes weekly seminar.

**Education 350 Early Childhood Literature** 3 lecture hours. 3 credits. • A survey of literature appropriate for nursery, kindergarten, and early elementary school grades. Emphasis will be placed on techniques of storytelling and oral reading.

**Education 351 Children's Literature I** 3 lecture hours. 3 credits. • Designed to give students an appreciation of values in children's literature; includes biography, fable, myth, traditional, and modern fanciful tales and poetry as well as a survey of the history of children's literature.

**Education 400 Independent Study** 1-6 hours. 1-6 credits. • Opportunities are provided for supervised research and independent study in selected areas. Designed for advanced students. All work offered on an individual basis with the approval of instructor concerned and departmental chairman.

**Education 401, 501 Pupil Evaluation** 3 lecture hours. 3 credits. • Principles and procedures in evaluating pupil growth in skills, attitudes, and understandings; construction and analysis of teacher-made tests; administration of group tests. Interpretation of group and individual tests with emphasis on measurement problems of exceptional children.

**Education 402, 502 Guidance** 3 lecture hours. 3 credits. • An introductory course for all students in counselor education. Includes a survey of pupil personnel services and places special emphasis on those services associated with the guidance program. The course is designed for both elementary and secondary counselors and is a prerequisite to all other courses offered by the department of counselor education.

**Education 403 Guidance for Exceptional Children** 3 lecture hours. 3 credits. • Inter-relationships of home, school, and community agencies are explored with emphasis on the special education teacher as a guidance worker in the areas of educational, mental, social, and vocational development.

**Education 406 Psychology in the Classroom** 3 lecture hours. 3 credits. • An in-service course for classroom teachers. Based on special problems faced by the classroom teacher in testing, reading, speaking, slow learners, emotionally disturbed children, etc.

**Education 407 Audio-Visual Education** 3 lecture hours. 3 credits. • The study and use of audio-visual equipment and aids and means for using them for more effective presentations to groups.

**Education 408 Approach to Mass Media Instruction in Art Education** 2 lecture and 2 laboratory hours. 3 credits. • Designed to familiarize prospective teachers with possibilities of utilizing available audio-visual equipment and materials. The emphasis will be on relating audio-visual tools to the study of

art. Within the course there is present the opportunity to expand the usage of audio-visual equipment beyond that of merely being a communication tool and now utilizing these devices in terms of creative expression.

**Education 409 TV in the Classroom** 3 lecture hours. 3 credits. • Emphasis on classroom utilization of educational television with brief historical and philosophical approach to the concept of ETV. Several sessions in the studio at WCVE-TV.

**Education 412 Aerospace Education** 3 lecture hours. 3 credits. • A study of the effects of aerospace operations upon social, economic, and political affairs. Emphasis will be placed upon orienting the educator to help his pupils develop an understanding of the technological aspects of the aerospace field. Teachers will have an opportunity to develop resource units for use in their elementary or secondary school classrooms. Opportunity for flight experience will be provided for those interested.

**Education 413 Advanced Aerospace Education** 3 lecture hours. 3 credits. Prerequisite: Education 412. See description for Education 412.

**Education 415 Early Childhood Programs** 3 lecture hours each semester. 3-3 credits. Prerequisites: Education 300, Education 302. • The historical and philosophical background of early childhood education; its organization, functions, and recent developments in programs and activities.

**Education 416 Early Childhood Procedures** 3 lecture hours each semester. 3-3 credits. Prerequisites: Education 300, Education 302. • The application of principles and techniques of teaching in all areas of the curriculum for young children.

**Education 420 The Elementary School Curriculum** 3 lecture hours. 3 credits. Prerequisites: Education 300 and Education 301 or Education 302. • The historical and philosophical background of the modern elementary school; its organization, functions, and recent developments in programs and activities.

**Education 421 Methods in the Elementary School** 3 lecture hours. 3 credits. Prerequisites: Education 300 and Education 301 or Education 302. • The application of the principles and techniques of teaching in all areas of child development and learning in the elementary school.

**Education 422 Teaching Elementary School Mathematics** 3 lecture hours. 3 credits. • Methods and techniques used to teach mathematics in grades one through six. Background material, course content, and modern uses of mathematics will be stressed to give the teacher a better understanding of this subject area.

**Education 423-424 Modern Mathematics for Elementary Teachers** 3 lecture hours each semester. 3 credits each semester. • Designed to give elementary teachers a better understanding of principles and concepts in modern mathematics.

**Education 425 Teaching Language Arts in Elementary School** 3 lecture hours. 3 credits. • A study of teaching techniques and materials for the developmental teaching of oral communication and written expression.

**Education 426 The Teaching of Reading** 3 lecture hours. 3 credits. Prerequisites: Education 300 and Education 301 or Education 302. • A study of the major problems of reading instruction with special attention to the individual's development in reading throughout his elementary school experience.

**Education 428/English 428 Children's Literature II** 3 lecture hours each semester. 3-3 credits. • Designed to give students an appreciation of values in children's literature; includes biography, fable, myth, traditional, and modern fanciful tales and poetry as well as a survey of the history of children's literature.

**Education 436 The Secondary School** 3 lecture hours. 3 credits. • Intensive study of the secondary school and its role and function in American public education with particular attention to problems, trends, and issues.

**Education 437 High School Curriculum** 3 lecture hours. 3 credits. • A study of the background and objectives of the modern high school; and examination of basic issues and current trends in curriculum construction and revision.

**Education 438 High School Methods** 3 lecture hours. 3 credits. • The application of principles and techniques of teaching in the high school. Emphases include understanding the adolescent, the learning process, the motivation of learning, and the evaluation of the teaching-learning process.

**Education 439 High School Curriculum and Methods** 6 lecture hours. 3-6 credits. • Basic issues and current trends in curriculum are integrated with principles and techniques of teaching.

**Education 440 Principles and Techniques of Teaching High School Sciences** Second semester; 2 lecture and 3 laboratory hours. 3 credits. Prerequisite: Upper division science education major. • A treatment of principles and techniques of teaching high school science. Emphases include philosophy of science teaching, appropriate learning principles, curriculum innovations, and diverse methods as applied to the field of science. The interrelationship of the sciences will also be stressed.

**Education 441 Teaching High School English** 3 lecture hours. 3 credits. • Development and organization of English instruction with specific attention to methodology, equipment, materials, and resources. Open to prospective teachers of foreign languages.

**Education 442 Teaching Social Studies—Secondary** Both semesters; 3 lecture hours. 3 credits. • Examines (1) the demands involved in secondary social studies instruction, (2) preparatory approaches to using academic and professional insights in confronting the demands, and (3) the formulation and implementation of appropriate methodological approaches.

**Education 446 Literature for Adolescents** 3 lecture hours. 3 credits. Prerequisites: Open to upper division undergraduate English education majors. • This course is designed to acquaint the prospective secondary school English teacher with the nature, scope, and uses of adolescent literature.

The student is exposed to reading materials designed to meet the varied needs and interests of adolescents in the American high school.

**Education 447 Supervised Teaching in Art Education—Elementary and Secondary** Both semesters; five days per week for seven weeks at both the elementary and secondary levels; 8 credits. Prerequisites: Education 301, Art Education 401, Art Education 402. • Classroom experience is offered so that the student may learn to harmonize theory and practice, develop a professional point of view, acquire teaching skills, and gain an understanding of children and how they learn.

**Education 451, 551 Survey of Special Education** 3 lecture hours. 3 credits. • For majors and non-majors. An overview of the field of special education identifying exceptional children, programs, facilities, literature, services, and professional workers. A first course for special education majors.

**Education 452, 552 Orientation to Speech Pathology** 3 lecture hours. 3 credits. • An introduction to the history, scope, and trends in the field of speech pathology to include terminology systems of classifications and concepts of etiology, diagnosis, and therapy.

**Education 456, 556 Characteristics of the Mentally Retarded** 3 lecture hours. 3 credits. • Nature and needs of the mentally retarded with emphasis upon the degrees of retardation, causes, and concomitant problems. Psychological bases for a suitable curriculum are also explored.

**Education 457, 557 Characteristics of the Emotionally Disturbed** 3 lecture hours. 3 credits. • A study of the causes and resultant problems involved in emotional disturbance and the implications for educational management.

**Education 460, 560 Teaching the Disadvantaged** 3 lecture hours. 3 credits. • Exploration of the nature and needs of disadvantaged children with emphasis on implications for teaching.

**Education 461, 561 Teaching the Mentally Retarded** 3 lecture hours. 3 credits. Prerequisite: Education 451 or permission of the instructor. • Curriculum development and organization of activities for the mentally retarded at different maturational levels with specific attention to program content, equipment, materials, and resources.

**Education 462, 562 Teaching the Emotionally Disturbed** 3 lecture hours. 3 credits. Prerequisites: Education 451 and 457. • Curriculum development and organization of activities for the emotionally disturbed, including program content, equipment, materials, and resources.

**Education 463, 563 Teaching Slow Learners** 3 lecture hours. 3 credits. • Curriculum development and organization of activities for slow learners at different maturational levels with specific attention to program content, materials, resources, and guidance.

**Education 464, 564 Teaching the Gifted** 3 lecture hours. 3 credits. • Curriculum development and organization of activities for the gifted at different maturational levels with specific attention to program content materials, resources, and guidance.

**Education 466, 566 Remedial Reading** 3 lecture hours. 3 credits. • Designed for teachers and others who assist in improving reading efficiency, diagnosis of reading difficulties of all age groups, administration and interpretation of individual reading diagnostic tests, organization of reading instruction for individuals or small groups based upon careful diagnosis; specialized remedial methods presented for severely retarded or non-readers.

**Education 467, 567 Language Arts for the Mentally Retarded** 3 lecture hours. 3 credits. • A study of the communication problems of the mentally retarded at different maturational levels and techniques for developing appropriate curricular emphasis in the total program.

**Education 468, 568 Psycho-Educational Diagnosis of Children** 3 lecture hours. 3 credits. • A review of tests used in determining nature and extent of learning deficits and their translation into education methodology for children with specific learning problems. Techniques of remediating learning disorders will be examined and evaluated.

**Education 471, 571 Medical Aspects of Crippling Conditions** 3 lecture hours. 3 credits. • Survey of medical conditions and special health problems as they relate to educational planning and programming. Etiology, prognosis, and effects of disabling conditions are discussed by medical specialists. Teacher-physician relationships are explored. Planning for both the child and his environment to meet his special needs is included.

**Education 474, 574 Bases of Speech** 3 lecture hours. 3 credits. • Anatomical, physiological, neurological, psychological, and physical bases of speech and language.

**Education 480, 580 Human Interaction in Teaching** 3 lecture hours. 3 credits. • Case-oriented study of affective behavior and its influence on the classroom climate and learning. The content will emerge as the cases are presented and discussed by the participants.

**Education 485 Supervised Teaching—Elementary Education** Five days per week for eight weeks. 6 credits. Prerequisites: Education 301 and 305 or parallel courses. • Classroom experience is offered so that the student may learn to harmonize theory and practice, develop a professional point of view, acquire teaching skills, and gain an understanding of children and how they learn. Students will participate in a wide range of school activities.

**Education 486 Supervised Teaching—Secondary Education** Five days per week for eight weeks. 6 credits. Prerequisites: Speech 308, Education 403 and completion of 15 semester credits or more in an academic subject. • Classroom teaching experience is provided so that students may learn to harmonize theory and practice, develop a professional point of view, acquire teaching skills and an understanding of adolescents and how they learn. Students will participate in a wide range of school activities.

**Education 487 Supervised Teaching—Special Education** 5 days per week for eight weeks; 6 credits. • Classroom experience is offered so that the student may learn to harmonize theory and practice, develop a professional point

of view, acquire teaching skills, and gain an understanding of children and how they learn. Students will participate in a wide range of school activities.

**Education 488 Supervised Practicum—Advanced** 1-3 credits. • Intensive clinical experiences in teaching designed to meet individual student's needs. Includes weekly seminar.

**Education 490 Seminar** 3 credits. • An elective course for senior education students and other students on approval of the instructor. Discussion of current issues in education.

## COURSES IN LIBRARY SCIENCE

CLARE G. HOUGHTON, Adviser

Although VCU does not offer a degree in library science, selected courses are offered in both day and evening programs leading to state certification for libraries in the public schools. A minimum of 18 hours of credit are required for such certification. A semester's course (3 hours) in children's literature is required within the 18 hours. For further information write or call the dean of the school of education or the library science adviser.

**Library Science 301 Reference and Bibliography** Semester course; 3 lecture hours. 3 credits. • A study and evaluation of basic reference books and other bibliographical material most frequently used to answer reference questions in a library.

**Library Science 302 Library Organization and Administration** Semester course; 3 lecture hours. 3 credits. • A study of fundamental methods, routines, and procedures in the acquisition, preparation, and circulation of books for a small library, with special emphasis on the school library.

**Library Science 353 Adolescent Literature** Semester course; 3 lecture hours. 3 credits. • Designed to provide students with a sense of values in adolescent literature on the basis of the cultural and literary values contained in such literature. Special reference is made to a wide range of appropriate literature for adolescent children.

**Library Science 401 Cataloguing and Classification** Semester course; 3 lecture hours. 3 credits. • A basic course in cataloguing the more common types of library materials. Practice in using the Dewey Decimal Classifications, subject headings, simple filing rules, and the use and adaptation of printed cards and cataloguing aids.

**Library Science 402 Non-Book Materials** Semester course; 3 lecture hours. 3 credits. • Classification, selection, preparation, and use of pamphlets, pictures, charts, maps, bulletin boards, films, filmstrips, and other non-book materials. Emphasis placed on coordination of such materials into the library program.

**Library Science 430 Services in Special Libraries** Semester course; 3 lecture hours. 3 credits. • An examination of problems, services, and methods involved in organizing and administering special libraries in industry, re-

search laboratories, and educational institutions. Special attention will be given to automation, inter-library cooperation, and information retrieval. Designed for persons already engaged in work in special libraries.

**Library Science 454 Practice Librarianship** Semester course; 3 credits. Prerequisite: 18 credits of library science or related subjects. • The student is expected to spend 100 or more clock hours in working under supervision in an approved library.

## COURSES IN PHYSICAL EDUCATION

These courses are for majors. Courses for non-majors are listed on pages . .

**Physical Education 190 Introduction to Physical Education** First semester; 2 lecture hours. 2 credits. • Overview of the professional aspects of physical education in our society, philosophical and scientific principles of physical education, professional organizations and literature, and career possibilities and qualifications.

**Physical Education 237 Teaching Gymnastics to Girls** Second semester; 3 lecture hours. 3 credits. • Uneven parallel bars, balance beam, free exercise, tumbling, and vaulting. Open only to employed teachers.

**Physical Education 372 Theory and Techniques of Coaching Baseball and Basketball** First semester; 2 lecture hours. 2 credits. Prerequisites: Physical Education 140, 141. • Theory and practice of coaching baseball and basketball, particularly at the high school level.

**Physical Education 373 Theory and Techniques of Coaching Football and Wrestling** First semester; 2 lecture hours. 2 credits. Prerequisites: Physical Education 140, 233. • Theory and practice of coaching football and wrestling, particularly at the high school level.

**Physical Education 374 Theory and Techniques of Coaching Tennis, Gymnastics, Swimming, and Golf** First semester; 2 lecture hours. 2 credits. Prerequisites: Physical Education 151 or 250, 231, 232, 234. • Theory and practice of coaching tennis, gymnastics, swimming, and golf, particularly at the high school level.

**Physical Education 375 Theory and Techniques of Coaching Soccer, Track, and Field** First semester; 2 lecture hours. 2 credits. Prerequisites: Physical Education 140, 141. • Theory and practice of coaching soccer and track and field, particularly at the high school level.

**Physical Education 390 Teaching Physical Education in the Elementary Schools** Semester course; 2 lecture and 2 laboratory hours. 3 credits. • Methods and curriculum planning in physical education for the elementary school classroom teacher and physical education specialist. Included are analysis of movement, games, and activities suitable for the elementary school child.

**Physical Education 392 Kinesiology** First semester; 3 lecture hours. 3 credits. Prerequisite: Biology 206 or permission of instructor. • A study of the anatomical, physiological, and physical aspects of human motion with application to the analysis of physical activities.

**Physical Education 397 Methods in Health and Physical Education** First semester; 2 lecture and 2 laboratory hours. 3 credits. • Methods, materials, techniques, and skills in teaching secondary physical education.

**Physical Education 398 Curriculum in Physical Education** Second semester; 3 lecture hours. 3 credits. • Curriculum planning for secondary school physical education programs.

**Physical Education 407 Secondary School Physical Education Activities** Semester course; 3 lecture hours. 3 credits. • A presentation of a progressive gymnastic program of tumbling, stunts, gym horse, parallel bars, horizontal bar, and trampoline. Emphasis will be placed on methods and techniques of teaching apparatus and tumbling in secondary schools. Participation on equipment will be desirable but voluntary.

**Physical Education 411 Problems of Coaching (Basketball)** First semester; 3 lecture hours. 3 credits. • An intensive study of problems involved in coaching major sports in the secondary school. Emphasis will be placed on practical aspects of organization, administration, and techniques required for successful coaching. This course is designed to meet the needs of personnel already involved in coaching.

**Physical Education 412 Problems of Coaching (Football)** Second semester; 3 lecture hours. 3 credits. • An intensive study of problems involved in coaching major sports in the secondary school. Emphasis will be placed on practical aspects of organization, administration, and techniques required for successful coaching. Designed to meet the needs of personnel already involved in coaching.

**Physical Education 477 Psychology of Coaching** Semester course; 3 lecture hours. 3 credits. Prerequisite: Completion of two coaching theory courses or permission of instructors. • Psychological basis of athletic coaching with emphasis upon the factors affecting the teaching and learning of athletic skills. Review and analysis of appropriate research findings in the area of motor learning. Study of the problems of coaching at the secondary and college level.

**Physical Education 492 Physiology of Exercise** Second semester; 3 lecture hours and 1 laboratory hour. 3 credits. Prerequisite: Biology 206. • Physiological changes in the human organism resulting from exercise. Investigation of recent research in diet, drugs, fatigue, cardiovascular/respiratory fitness, conditioning programs for various age groups, and the effects of exercise upon various components of physical fitness and health. Application of specific problems to physical education programs. Laboratory experience in the use of research instruments in exercise physiology and completion of four group and two individual studies required.

**Physical Education 493 Tests and Measurement in Health and Physical Education** First semester; 3 lecture hours. 3 credits. Prerequisites: Mathematics 104 or 106, Psychology 305. • Selecting, administering, scoring, and evaluating tests in the areas of general motor ability, physical fitness, anthropometrics, motor educability, specialized skills, and knowledge tests. Scientific test construction and basic statistical analysis. Application of



competencies demonstrated by completion of project requiring the administration and evaluation of one or more tests, review of the literature, analysis of data, and presentation of conclusions and recommendations.

**Physical Education 495 Adaptive and Corrective Physical Education** Second semester; 3 lecture hours. 3 credits. Prerequisite: Physical Education 492. • A course designed to provide physical educators with methods of teaching and program planning for students with either temporary or permanent physical disabilities with emphasis on kinds and degrees of anatomical and physiological limitations.

**Physical Education 499 Organization and Administration of Physical Education** First semester. 3 lecture hours. 3 credits. • Equipment and facilities, routine procedures, budgets and finance, legal liability, public relations, scheduling, and organizing the physical education class program and extra-curricular activities.

#### **COURSES IN HEALTH EDUCATION**

**Health Education 380 First Aid and Accident Prevention** Second semester; 2 lecture hours. 2 credits. • Standard and advanced Red Cross first aid course designed for students in teacher preparation program other than physical education.

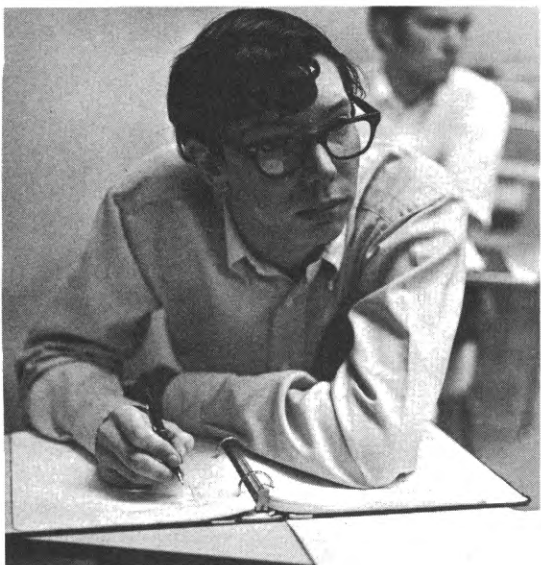
**Health Education 382 Driver Education** First semester; 3 lecture hours. 3 credits. Prerequisite: Driving license. • Classroom instruction combined with road training and teaching of driving to beginners. The essential facts, rules, regulations, skills, and attitudes for good driving.

**Health Education 385 School Health** Semester course; 3 lecture hours. 3 credits. • The role of the classroom teacher in the school health program.

**Health Education 386 Community Health** Second semester on alternate year basis. 3 lecture hours. 3 credits. • The function of health organizations as they relate to each other and to the community.

**Health Education 480 Safety Education and First Aid** Semester course; 3 lecture hours. 3 credits. • Designed to show the hazards of, to develop wholesome attitudes toward, and to impart knowledge concerning the safety aspects of all areas of activity in the home, school, and community. Standard and advanced Red Cross first aid requirements are also incorporated into this course.

**Health Education 487 Health Problems** Semester course; 3 lecture hours. 3 credits. • A study of health problems, with emphasis on preventive measures.



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## **CURRICULUM IN ENGINEERING**

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C. A. B. FOSTER Coordinator

John E. Griffin, Jr. / Juan F. Linares

An engineering education requires that the student establish a strong foundation in mathematics and science before entering into the concentrated study of the specialized courses which prepare him to be an engineer in one of a dozen major fields of engineering, such as: aerospace, civil, electrical . . . The program outlined here is designed to provide this foundation. The student also begins studies in the humanities and social sciences.

The first year is the same for all branches of engineering, and the beginning student need not have a specific engineering goal. He should, however, have made a rather firm choice before he begins his second year. Guidance in this direction is available through a course in introduction to engineering and through general counseling.

Early in his program, the student should familiarize himself with the requirements of the institution from which he plans to receive his degree. He should seek the assistance of his adviser in planning the best selection of classes.

### **Admission Requirements**

Graduation from high school with a minimum of 16 units, including four units in English, four in mathematics, one in a laboratory science, and one in history, is required for full admission. The four units in mathematics should include two units in algebra, one in geometry, and one-half in trigo-

nometry. The remaining one-half unit may be in advanced algebra, solid geometry, or higher mathematics.

Applicants are required to take the Scholastic Aptitude Test (morning program) given by the College Entrance Examination Board (CEEB) and achievement tests in English and mathematics in the afternoon program of the CEEB. It is recommended that the aptitude test be taken in December. The achievement tests may be taken in December, January, or March.

### Expenses

Expenses for freshmen, who will enroll on the semester system, are listed in an earlier section of this *Bulletin* under "Fees and Expenses."

For students enrolled on the quarter system, the expenses are as follows.

#### Full-Time Students—Virginia Residents

First quarter: Tuition (for a class load not to exceed 19 credits) . . . . .	\$143.00
Second quarter: Tuition (for 19 credits or less) . . . . .	143.00
Third quarter: Tuition (for 19 credits or less) . . . . .	143.00
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Total for academic year . . . . .	\$429.00

Non-residents of Virginia are charged \$300.00 per quarter for 19 credits or less.

Payments for the academic year are due quarterly on August 15, December 15, and March 5.

Part-time day students who are Virginia residents are charged \$13.00 per quarter-hour credit. For non-Virginia residents, the charge is \$23.00.

Full-time students shall pay \$8.00 per quarter for student activities. Part-time students (those carrying 7 through 11 credits) shall pay \$4.00 per quarter.

Dormitory and other fees are approximately two-thirds of the semester charges each quarter.

Cost of supplies and equipment should be between \$100 and \$150, including slide rule and drawing equipment.

### The Curriculum

The engineering program is being changed from the quarter system to the semester system during the 1970-71-72 sessions. The freshman program is, therefore, taught on the semester system in 1970-71, while the sophomore program is on the quarter system. Beginning with the 1971-72 session, both the freshman and sophomore years will be on the semester system.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
Chemistry 101-102. General Chemistry .....	4	4
Engineering 105-106. Introduction to Engineering and Design .....	2	2
Engineering 107-108. Engineering Graphics .....	2	3
English 101-102. Composition and Literature .....	3	3
Mathematics 200-201. Calculus with Analytic Geometry*..	4	4
Physical Education or Elective .....	1-3	1-0
	<hr/>	
	16-18	17-16

	<i>Quarter Credits Per Session</i>	
<i>Second Year (1970-71)</i>		
Economics V211-V221-V231. Principles of Economics .....	9	
Engineering V215. Engineering Economy .....	3	
Engineering V211. Mechanics of Particles .....	5	
Engineering V236. Dynamics of Rigid Bodies .....	3	
Mathematics V211-V221-V231. Calculus .....	9	
Physics V227-V327. Foundations of Physics .....	8	
Electives, according to major .....	13-15	
	<hr/>	
	50-52	

\* Please see, under mathematics, the requirements to enter this course.

**Aerospace Engineering:** Include Engineering V228, Engineering V310, and three semester credits of approved electives.

**Agricultural Engineering:** Include Engineering V218, Engineering V228, and Engineering V310.

**Civil Engineering:** Include Engineering V202, Engineering V228, and Engineering V310.

**Electrical Engineering:** Include Engineering V201, Engineering V218, and three semester credits of approved elective.

**Engineering Mechanics:** Include Engineering V228, Engineering V310, and three semester credits of approved elective.

**Industrial Engineering:** Include Engineering V218, Engineering V228, and Engineering V310.

**Mechanical Engineering:** Include Engineering V218, Engineering V228, and Engineering V310.

The content of the second year, beginning with the 1971-72 session, will be essentially the same as that shown above, except that all of the courses will be offered on the semester system.

**COURSES IN ENGINEERING**

**Engineering 105-106 Introduction to Engineering and Design** Continuous course; 1 lecture hour and 2 laboratory hours each semester. 2-2 credits. • An introduction to the nature of engineering; the place of the engineer in our society; the fields of engineering; graphical representation of data; introduction to graphical solutions; the use of the slide rule; introduction to computers and computer programming; the fundamentals of engineering problems and problem formulation; the design process; design problems; student presentations.

**Engineering 107-108 Engineering Graphics** Continuous course; first semester: 1 lecture hour and 4 laboratory hours. 2 credits. Second semester: 2 lecture hours and 3 laboratory hours. 3 credits. • Introduction to graphical representation; theories of orthographic projection of points, lines, planes, and solids; descriptive geometry as applied to space relationships in graphical problems; pictorial drawing (axonometric, oblique, and perspective); application of drawing and standard specifications; engineering illustration; generation and development of curved and warped surfaces.

**Engineering V201 Circuits I** Third quarter; 5 lecture hours. 5 credits. Prerequisite: Physics V227; corequisite: Mathematics V231. • Fundamental laws of circuit theory, general two terminal network theory.

**Engineering V202 Surveying** First quarter; 3 lecture and 6 laboratory hours. 5 credits. Prerequisite: Mathematics V131. • Engineering measurements and errors; theory and use of instruments; topographic, construction, and route survey; applications of measurements in civil engineering.

**Engineering V211 Mechanics of Particles** First quarter; 5 lecture hours. 5 credits. Corequisite: Mathematics V211. • Vector treatment, using index notation, of concepts of force, mass, space, time; gravitational systems of measurements; equilibrium of discrete force systems; centroids; dry friction; planar and three-dimensional kinematics and kinetics of particles; relative motion, mass moments of inertia, Newton's laws, work and energy, impulse and momentum.

**Engineering V215 Engineering Economy** Second quarter; 3 lecture hours. 3 credits. • The economic decision process in the engineering design environment. Investment, financing, depreciation, manufacturing costs, economic selection, replacement.

**Engineering V218 Computer Methods** First quarter; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: Engineering V102; corequisite: Mathematics V131. • Introduction to the theory of digital and analog computers. FORTRAN programming of engineering and mathematical problems. Programs written by students will be processed by a modern computer.

**Engineering V228 Mechanics of Deformable Solids** Second quarter; 5 lecture hours. 5 credits: Corequisite: Mathematics V221. • Structural mechanics applied to trusses, frames; mechanics of continuous media; concepts of stress, strain, stress-strain relations; stress and deformation due to longitudinal load, torsion, and bending; eccentric loads; Mohr circle; de-

flection of statically determinate and indeterminate beams, Euler column theory.

**Engineering V236 Dynamics of Rigid Bodies** Third quarter; 3 lecture hours. 3 credits. Prerequisite: Engineering V211; corequisite: Mathematics V221.

• Vector treatment, using index notation, of planar and three-dimensional kinematics and kinetics of rigid bodies; mass moments of inertia; Newton's laws, work and energy, impulse and momentum, vibration applied to rigid bodies.

**Engineering V310 Electrical Theory** Third quarter; 5 lecture hours. 5 credits. Prerequisite: Physics V227; corequisite: Mathematics V231. • A study of fundamentals of electric circuits. For students in curricula other than electrical engineering.

**Mathematics V211-V221-V231 Calculus II** Continuous course; 3 lecture hours. 3-3-3 credits. Prerequisite: Mathematics V131. • A modern course including vectors, partial differentiation, multiple integrals, infinite series, and differential equations.





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## **SCHOOL OF ENGINEERING TECHNOLOGY**

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**JOHN V. ANKENY, Director**

Charles W. Bilmond / Lewis H. Blakely / Earl W. Cameron  
James E. Corbett, Jr. / William E. Cox / Fairfax G. Davis  
Leonard G. Hoadley / Charles G. Johnson / Clinton E. Jones  
John Kaufman / Charles G. McKinney / Sanford O. Smith

Part time—Margaret S. Drake

For every graduate of a four-year curriculum in engineering, architecture, or construction, industry today needs from one to seven trained technicians who have completed an associate degree, or a two-year post-high school program in an occupationally-oriented curriculum.

The purpose of these two-year associate degree programs is to prepare students to hold positions as architectural, electrical, engineering, machine, and construction draftsmen, or as assistants to engineers, architects, estimators and contractors, or in the construction and industrial fields in general. Instruction will be offered in five areas: air conditioning and refrigeration, civil and highway, drafting and design, and electrical-electronics technology.

### **Admission Requirements**

The requirements for entrance to the school of engineering technology include graduation from an accredited high school with at least 16 acceptable units. Students not able to present certificates of high school graduation, may be accepted providing they satisfactorily pass the high school completion equivalency examination administered by the Virginia State Board of Education.

Students entering the program must have a minimum of two units of algebra or one unit each of algebra and geometry.

Students having completed these requirements in their freshman, sophomore, or junior year of high school, should complete a course in senior mathematics just prior to graduation. Completion of two years of algebra and one year of geometry should be encouraged. Other courses such as mechanical drawing, chemistry, trigonometry, and physics would be helpful. Mathematics 151 (Algebra) will be offered during the Summer Session as a part of the day and/or evening college program for students desiring to meet high school deficiencies. Students ranking in the middle third or third quartile of their graduating class should avail themselves of this opportunity to prepare for college level work.

**General Expenses**

Textbooks, slide rule, drafting equipment, etc., will cost an estimated \$100-\$125 the first year and \$75-\$100 the second year.

Supervised on-the-job training is limited to the extent of available employment in the selected occupation. Students presently employed in the Richmond area may find it possible to continue their work as part of the cooperative program.

**Curriculum in Mechanical Engineering Technology**

(Air Conditioning and Refrigeration)

		<i>Credits</i>	
		<i>1st</i>	<i>2nd</i>
		<i>Sem.</i>	<i>Sem.</i>
<i>First Year</i>			
ACT 103.	Basic Refrigeration . . . . .	4	—
ACT 110.	Basic Air Conditioning . . . . .	—	4
ACT 112.	Heating, Ventilating, and Piping . . . . .	—	4
DDT 109.	Engineering Drawing . . . . .	3	—
DDT 167.	Construction Plans and Specification . . . . .	3	—
EET 107.	Applied Electricity . . . . .	4	—
English 107.	English Communications and Report Writing . . . . .	—	3
Mathematics 109.	Algebra and Geometry . . . . .	3	—
Mathematics 110.	Analytical Geometry and Trigonometry . . . . .	—	3
Physics 209.	Applied Physics . . . . .	—	4
		17	18

*Second Year*

ACT 201.	Air Distribution and Design . . . . .	3	—
ACT 203.	Hydronic Systems and Plumbing Design . . . . .	3	—
ACT 205.	Air Conditioning and Refrigeration Analysis . . . . .	3	—
ACT 210.	Air Conditioning and Refrigeration Controls . . . . .	—	4
ACT 212.	Commercial Air Conditioning Design . . . . .	—	3

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
ACT 214. Commercial Refrigeration Design .....	—	3
ACT 216. System Balancing and Testing .....	—	2
ACT 301. Industrial Air Conditioning and Ventilating Systems .....	2	—
ACT 302. High Velocity Duct Systems .....	—	3
ACT 303. Industrial and Low Temperature Refrigeration Applications .....	2	—
ET 201-202. Supervised On-the-Job Training or		
Approved Elective .....	3	3
ET 204. Industrial Orientation .....	—	1
Mathematics 207. Vector Analysis and Calculus .....	3	—
	19	19

### Curriculum in Civil and Highway Engineering Technology

#### *First Year*

CHT 103. Civil Engineering Drawing .....	6	—
CHT 232. Highway Design and Construction .....	—	3
CHT 259-260. Soil Mechanics .....	3	3
DDT 167. Construction Plans and Specifications .....	—	3
DDT 117-118. Materials and Methods of Construction...	3	3
English 107. English Communications .....	3	—
Mathematics 109. Algebra and Geometry .....	3	—
Mathematics 110. Analytical Geometry and Trigonometry..	—	3
Physics 209. Applied Physics .....	—	4
	18	19

#### *Second Year*

CHT 233. Highway Design and Construction .....	3	—
CHT 257. Surveying .....	3	—
CHT 352. Hydraulics .....	—	3
DDT 241-242. Structures .....	3	3
DDT 350. Properties of Engineering Materials .....	—	3
ET 204. Industrial Orientation .....	—	1
Mathematics 207. Vector Analysis and Calculus .....	3	—
Physics 210. Applied Physics .....	4	—
Approved Elective: Construction Contracting, Construction Estimating, Supervised On-the-Job Training, Urban Plan- ning, or Geology for Technicians .....	3	9
	19	19

**Curriculum in Drafting and Design Technology**  
(Architectural, Building Construction and  
Machine Drafting and Estimating)

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
DDT 101. Machine Blueprint Reading .....	2	—
DDT 167. Construction Plans and Specifications .....	—	3
DDT 111. Engineering Drawing .....	6	—
DDT 116. Architectural Drawing .....	—	6
DDT 117-118. Materials and Methods of Construction....	3	3
English 107. English Communications .....	3	—
Mathematics 109. Algebra and Geometry .....	3	—
Mathematics 110. Analytical Geometry and Trigonometry .	—	3
Physics 210. Applied Physics .....	—	4
	17	19

*Second Year*

DDT 241-242. Structures or		
DDT 291-292. Statics and Dynamics .....	3	3
DDT 243-244. Mechanical and Electrical Equipment of Buildings .....	3	3
DDT 252. Construction Contracting .....	—	3
DDT 350. Properties of Engineering Materials .....	—	3
ET 204. Industrial Orientation .....	—	1
Mathematics 207. Vector Analysis and Calculus .....	3	—
Physics 210. Applied Physics .....	4	—
Approved Electives: Advanced Architectural Drawing, Con- struction Estimating, Machine Design Drawing, Soil Me- chanics, Supervised On-the-Job Training, Theory of Archi- tecture, or Urban Planning, Applied Electricity.....	6	6
	19	19

**Curriculum in Electrical-Electronics Engineering Technology**

*First Year*

EET 123-124. Basic Electricity .....	6	4
EET 125-126. Basic Electronics .....	3	6
English 107. English Communications .....	3	—
Mathematics 121-122. Applied Algebra and Trigonometry..	3	3
Physics 127-128. Applied Physics .....	4	4
	19	17

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Second Year</i>		
EET 228. Power Transmission and Distribution . . . . .	—	3
EET 229-230. Electric Circuits and Machines . . . . .	4	4
EET 232. Layout, Drawing and Design . . . . .	—	1
EET 233. Electrical-Electronic Instruments . . . . .	3	—
EET 301-302. Industrial Electronics and Controls . . . . .	4	4
EET 303-304. Radio Electronic Transmission or		
EET 305-306. Computer Circuitry . . . . .	3	3
EET 308. Microwave Fundamentals . . . . .	—	3
ET 204. Industrial Orientation . . . . .	—	1
Mathematics 221. Applied Calculus . . . . .	3	—
	17	19

## COURSES IN ENGINEERING TECHNOLOGY

**ACT 103 Basic Refrigeration** First semester; 3 lecture and 3 laboratory hours. 4 credits. • A lecture and laboratory course in the fundamentals of vapor compression and absorption refrigeration systems. Included are characteristics of refrigerants, compressors, heat exchangers, automatic flow controls, pressure and temperature controls, and motor controls.

**ACT 110 Basic Air Conditioning** Second semester; 3 lecture and 3 laboratory hours. 4 credits. • A basic lecture and laboratory course in heat load calculations, psychometrics, and systems for control of temperature, humidity, air distribution, and air purification. The student is shown and also operates equipment for various types of basic year-round air conditioning systems.

**ACT 112 Heating, Ventilating, and Piping** Second semester; 3 lecture and 3 laboratory hours. 4 credits. • A study of various types of heating and ventilating equipment, and their application to comfort residential and commercial uses; the operation and piping design of basic hydronic systems.

**ACT 201 Air Distribution and Design** First semester; 2 lecture and 3 laboratory hours. 3 credits. • An applied course in selection and layout of equipment, duct design, and principles of air distribution. Consideration is given to building and architectural features, and to cost estimating.

**ACT 203 Hydronic Systems and Plumbing Design** First semester; 2 lecture and 3 laboratory hours. 3 credits. • A study of steam system classification and design; acquainting the student with basic piping circuits, load characteristics, terminal heating and cooling units, medium and high temperature water heating systems; a study of regional and national codes to be observed, along with specifications and acceptable design of various systems.

**ACT 205 Air Conditioning and Refrigeration Analysis** First semester; 2 lecture and 2 laboratory hours. 3 credits. • Advance study and application of more complex refrigeration systems, including multistage and cascade; selection and balancing of components for built-up systems in commercial refrigeration and air conditioning.

**ACT 210 Air Conditioning and Refrigeration Controls** Second semester; 3 lecture and 3 laboratory hours. 4 credits. • A course involving the basic fundamentals of control systems, including the individual components and also complete systems of electric, electronic, and pneumatic controls for air conditioning and refrigeration applications.

**ACT 212 Commercial Air Conditioning Design** Second semester; 2 lecture and 3 laboratory hours. 3 credits. • An advanced course involving the calculations, equipment selection, and duct design required for complete plans and specifications of central station systems, representing a full coverage of contemporary practice.

**ACT 214 Commercial Refrigeration Design** Second semester; 2 lecture and 3 laboratory hours. 3 credits. • An advanced course in the layout and design of refrigeration enclosures, piping, load calculations, equipment selection, and also cost estimating of complete commercial refrigeration systems. Also included are factors concerning the operation, performance characteristics, and problems of conventional and low temperature refrigeration systems.

**ACT 216 System Balancing and Testing** Second semester; 1 lecture hour and 2 laboratory hours. 2 credits. • A study of various types of systems, and the instruments required for testing; a step-by-step procedure for checking actual conditions of air velocity, air capacity, temperature, and air pressures in duct branches, risers, and main duct of central systems.

**ACT 301 Industrial Air Conditioning and Ventilating Systems** First semester; 1 lecture hour and 2 laboratory hours. 2 credits. • The design, application, and central station equipment selection for stores, public buildings, educational facilities, hospitals, process plants, and general control of the industrial environment.

**ACT 302 High Velocity Duct Systems** Second semester; 2 lecture and 2 laboratory hours. 3 credits. • A study of single and dual-duct systems, mixing boxes or chambers, duct sizing, noise factors, attenuators, terminal reheat and also zone control.

**ACT 303 Industrial and Low Temperature Refrigeration Applications** First semester; 1 lecture hour and 2 laboratory hours. 2 credits. • A study of the use of refrigeration in metallurgy; primary, secondary, and expandable refrigerants; medical and clinical applications; physical properties and uses of cryogenic fluids; vacuum systems; and ice manufacture.

**CHT 103 Civil Engineering Drawing** First semester; 2 lecture and 9 laboratory hours. 6 credits. • A basic course designed to acquaint the student with necessary detail drawings incidental to civil and highway planning and design, including theory and application of orthographic projection,

free-hand lettering and sketching, auxiliary views, isometric and oblique drawings, and dimensioning of working drawings. Other subject areas of study are: applications of route locations, highway surveys and plans, including a study of compound, reverse, simple, parabolic, spiral curves, and earthwork.

**CHT 232-233 Highway Design and Construction** Continuous course; 3 lectures per week. 3-3 credits. Prerequisite: Two years of high school drawing and two years of high school mathematics (one year of algebra and trigonometry or two of algebra). • Designed for undergraduate students and practicing highway design and construction personnel. Included are: basic fundamentals of highway geometric design, highway economics and planning, surveys highway capacity, intersection and interchange design, drainage design, flexible and rigid pavement design, construction specifications and methods and maintenance procedures.

**CHT 257 Surveying** Semester course; 2 lecture and 3 laboratory hours. 3 credits. • A course involving the use of surveying equipment, note-keeping, computations, planimetric topographic work.

**CHT 259-260 Soil Mechanics** Continuous course; 3 lecture hours. 3-3 credits. • It is intended for use by undergraduate students and by practicing engineers who may not have had formal training in soils. In this course the origin and natures of soils are discussed, the major physical properties, such as texture, structure, density and water bearing consistency. Soil classifications are discussed as an introduction to the conventional tests such as sieve analysis, liquid limit, plastic limit, compaction and California Bearing Ratio. Soil stabilization and the design of both flexible and rigid pavement are covered. Lectures will be interspersed with laboratory demonstrations and practical work.

**CHT 352 Hydraulics** Semester course; 3 lecture hours. 3 credits. • This course includes the study of hydrostatics and hydrodynamics from the viewpoint of the civil engineer. The development and use of formulas involving pressures, grade, channel size, and flow through orifices and weirs are also covered.

**DDT 101 Machine Blueprint Reading (General)** First semester; 1 lecture hour and 2 laboratory hours. 2 credits. • A programmed and lecture course for development ability to visualize an object from blueprint form. To assist students to understand various views, reading of machine working drawings and blueprints, as well as supplementary information relative to special views and assembly drawings.

**DDT 109 Engineering Drawing** First semester; 2 lecture and 4 laboratory hours. 3 credits. • A basic course in engineering knowledge and technical skills that are essential for careers in engineering drafting and design. This course includes theory and application of freehand lettering and sketching, orthographic projection, dimensioning of working drawings, and isometric preparations.

**DDT 111 Engineering Drawing** First semester; 3 lecture and 9 laboratory hours. 6 credits. • A basic course in engineering knowledge and technical

skills essential for careers in engineering drafting and design. This course includes theory and application of orthographic projection, freehand lettering and sketching, use of drafting machines, auxiliary views, isometric and oblique preparations, dimensioning of working drawings, and representation of fastenings. Pencil and ink tracings and reproduction methods are also included.

**DDT 113-114 Architectural Drawing** Continuous course; 2 lecture and 4 laboratory hours. 3-3 credits. • A study of frame and masonry construction and architectural details, plumbing, heating, electrical plans and specifications. An appreciation and understanding of architectural problems and industrial plant construction will also be included.

**DDT 116 Architectural Drawing** Second semester; 3 lecture and 9 laboratory hours. 6 credits. • A course designed to acquaint the student with necessary detail drawings incidental to architectural planning and designing. Large scale details are drawn, utilizing standard components obtained from the text and architectural references. Emphasis is placed on acquisition and development of accepted drawing techniques, lettering, standards, practices and composition of working drawing.

**DDT 117-118 Materials and Methods of Construction** Continuous course; 3 lecture hours each semester. 3-3 credits. • A basic study of building components, their manufacture, grading validity of use as a building material, and a survey of the various techniques and processes by which they are assembled into final structure. Building code requirements, zoning laws, mathematical calculations, student reports, and lectures by representatives of the building supply industries are also included.

**DDT 167 Construction Plans and Specifications** First semester; 3 lecture hours. 3 credits. • The interpretation and visualization of building construction blueprints and job specifications, wiring diagrams, structural, architectural, and mechanical symbols; and methods and materials of contemporary construction practice.

**DDT 241-242 Structures** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: algebra, trigonometry, and physics. • A course in theoretical and practical design of timber, steel, and concrete structures involving beams, columns, footings, and structural connections.

**DDT 243E-244 Mechanical and Electrical Equipment of Buildings** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: algebra and trigonometry. • This course incorporates the fundamentals of heating, air conditioning, refrigeration, plumbing and electrical equipment as applied to residential, commercial, and industrial buildings.

**DDT 252 Construction Contracting** Semester course; 3 lecture hours. 3 credits. • A course involving the management functions of organizing, staffing, directing, and controlling as related to the contracting business.

**DDT 256 Urban Planning** Semester course; 3 lecture hours. 3 credits. • Designed for all technicians and those in related fields who wish to become more familiar with the principles and processes by which urban communities are planned and designed. Special emphasis is placed on the relationship



between the urban citizen and his surrounding environment. Topics included are: objectives of planning, the legal foundation, the planning agency, the comprehensive plan, zoning, subdivision of land, the neighborhood unit, commercial centers, the system of circulation, and urban renewal.

**DDT 283 Construction Estimating** First semester; 3 lecture hours. 3 credits. ● A complete survey course in construction estimating from below ground through the roof. To provide experience in quantity surveys and the development of complete estimates from take-off to bids.

**DDT 291 Statics** First semester course; 3 lecture hours. 3 credits. ● Practical applications of concurrent and non-concurrent, two- and three-dimensional force systems as applied to machine drafting. Included in the course is material related to graphical methods, friction forces, the work term, torsion and the catenary. (For engineering technology students only.)

**DDT 292 Dynamics** Second semester course; 3 lecture hours. 3 credits. ● Applications of rectilinear and curvilinear motion of machine part elements including impulse, momentu, acceleration, and kinematics. NOTE: "Statics" should be prerequisite to "Dynamics." The mechanics portion of physics course as well as trigonometry and algebra should be prerequisite to "Statics." (For engineering technology student only.)

**DDT 295 Theory of Architecture** Semester course; 3 lecture hours. 3 credits. (Fall semester only.) ● Designed for all students interested in exploring established visual criteria for architectural design: its physical and psychological effects upon our lives; and our role as clients, technicians, draftsmen, and other participating personnel who work and live in its midst. Lecture topics include: What is an Architectural Style: Is Contemporary Architecture Another Style? Client Needs or Whims? Is Taste a Matter of Opinion? Color as Food. The Architect as a Professional. Beauty if Function. The Process of Creative Design.

**DDT 321-322 Advanced Architectural Drawing** Continuous course; 6 laboratory hours. 3-3 credits. Prerequisites: ET 115-116. ● A course in advanced architectural drafting and designing. Requirements for this course include a complete set of working drawings for a two-story commercial structure, and the basic principles of engineering structural design including the preparation of perspective and display drawings; and the construction of models.

**DDT 331-332 Machine Design Drawing** Continuous course; 2 lecture and 4 laboratory hours. 3-3 credits. Prerequisites: algebra, trigonometry, and engineering drawing or the equivalent. ● To prepare engineering draftsmen and junior engineers to communicate effectively with machine design engineers. Content of the course is as follows: reviews of orthographic projections, sectioning, symbols, and detail, working and assembling drawing, machine ship practices and procedures, fasteners, transmission of motion, precision dimensioning, welding procedures and symbols, bills of materials and checking of drawings.

**DDT 350 Properties of Engineering Materials** Second semester course; 2 lecture and 2 laboratory hours. 3 credits. ● A study of the properties used and characteristics of ferrous and non-ferrous metals, timber, stone, clay products, and other engineering materials.

**EET 107 Applied Electricity** First semester; 3 lecture and 3 laboratory hours. 4 credits. • An introductory course to basic electricity including electron theory, Ohm's Law, DC and AC circuits, measuring instruments, motors and generators, power distribution, illumination, controls, and electronics. Laboratory work emphasizes basic circuitry and measurements, electrical machinery theory and operating characteristics, and electrical control methods. (Primarily for air conditioning and refrigeration students.)

**EET 123-124 Basic Electricity** Continuous course; 5 lecture and 3 laboratory hours. 6-4 credits. • Provide those fundamental concepts of direct and alternating current necessary for the understanding of power and communications circuits. The first semester is devoted primarily to DC circuits and an introduction to AC. Emphasis is placed on Ohm's Law and Kirchhoff's Laws as applied to solutions of circuit problems. Other topics include magnetic phenomena, meter movements and measuring instruments, and the DC effects of inductance and capacitance. Primary emphasis in the second semester is on AC theory and circuits problems involving series, parallel, and combination circuits. Inductance, capacitance, and resonance phenomena are included. Laboratory work stresses verification of theoretical principle, and the use of a variety of test and measuring instruments.

**EET 125-216 Basic Electronics** Continuous course; 2 lecture and 3 laboratory hours, first semester; 5 lecture and 3 laboratory hours, second semester. 3-6 credits. Prerequisites: Electricity 123-124 and Mathematics 121-122. • The basic science applied to the operation of various devices which make up electronic circuits. The course also includes specifications, operating characteristics, and application. The laboratory work includes principles of vacuum and gas tubes, and semiconductors; turned circuits, and basic circuits for power supplies, amplifiers, and oscillators. The proper use of test devices and measuring instruments is an important part of this course.

**EET 228 Power Transmission and Distribution** Second semester; 3 lecture hours. 3 credits. • A study of problems involved in transportation of electrical energy from the generating station to those using the energy. Studies are made of overhead and underground transmission and distribution systems, and substation and line equipment including conductors, insulators, poles and towers, switching, regulating, and protective devices.

**EET 229-230 Electric Circuits and Machine** Continuous course; 3 lecture and 3 laboratory hours. 4-4 credits. • First semester: An introduction to single phase AC. Includes Kirchhoff's Laws. DC networks, Thevenin's and Norton's theories, graphical solution of electrical problems, magnetic circuits, DC Transients, reactance, vector algebra, and impedance. Second semester: A study of AC circuit characteristics including resistance, capacitance, and inductance circuits; parallel and series parallel circuits, resonance; circuit analysis; network; coupling and induction; and polyphase circuits. AC machines are stressed in laboratory work which includes assembly and operation of AC generators and motors.

**EET 232 Layout, Drawing, and Design** Second semester; 3 laboratory hours. 1 credit. • This course includes the fundamentals of drawing and specialized drafting work related to electrical circuits design. Individual laboratory projects are selected and assigned.

**EET 233 Electrical and Electronic Instruments** First semester; 3 lecture hours. 3 credits. Prerequisite: Mathematics 121-122. • Designed to acquaint technicians with the basic test instruments in the electrical and electronics fields. The operating principles, use, calibration, and applications of instruments will be covered. Laboratory experiments will be practical applications of the theory covered in lectures.

**EET 301-302 Industrial Electronics and Controls** Continuous course; 3 lecture and 3 laboratory hours. 4-4 credits. Prerequisites: EET 124 Basic Electricity, EET 126 Basic Electronics, Mathematics 121, and Physics 128. • A practical course in which electronic components and simple circuits from Electricity 123-124 and Electronics 125-126 are utilized to introduce the student to the methods of industrial electronics and control in which typical circuits are analyzed and the applications of these circuits in industrial situations are studied. The servomechanism, electronic control of high-frequency heaters, resistance welders, DC motors, and photoelectric and electronic timing devices are emphasized. Particle precipitators, relays, gauges, and positioning devices are also discussed. Through the use of circuits and applications taken from industry, the laboratory section of the course familiarizes the student with the operating requirements of complete functional units containing photoelectric control units, DC electric motor controls, and remote measuring, and positioning devices. The student constructs, repairs, and tests units to satisfy typical application problems in industry.

**EET 303-304 Radio-Electronic Transmission** Continuous course; 3 lecture hours. 3-3 credits. • This course will encompass four basic areas: electrical networks, transmission lines, radio antennae, and radio transmitters.

**EET 305-306 Computer Circuitry** Continuous course; 3 lecture hours. 3-3 credits. • An introduction to computers and computer circuitry. Theory components, and circuits of analog and digital computers are developed. Basic logical circuits, logical design, and associated binary arithmetic and boolean algebra are analyzed. Major divisions of the computer are covered from a component and systems viewpoint.

**EET 308 Microwave Fundamentals** Second semester; 3 lecture hours. 3 credits. • The study of microwave circuits and devices with emphasis on demonstrations and measurement techniques.

**English 107 English Communications** Both semesters; 5 lecture hours. 3 credits. • This course includes the following areas of study: sentence structure, the use of resource materials, written and oral expression, and improving reading efficiency. For engineering technology students only.

**E.T. 201-202 Supervised On-The-Job Training** Semester course; 15 laboratory hours. 3 credits. • A program in supervised job experience related to field of technology in which the student is specializing.

**E.T. 204 Industrial Orientation** Semester course; 1 lecture hour. 1 credit. • A review of human behavior in industry, employer-employee relations, and industrial organization. Guest speakers will present current employment information for graduate technicians.

**Mathematics 109 Algebra and Geometry** First semester; 5 lecture hours. 3 credits. • A course including slide rule operation, review of elementary algebra, linear equations with emphasis on verbal problems, applications of plane and solid geometry, and elementary trigonometry through the solutions of right triangles. For engineering technology student only.

**Mathematics 110 Analytical Geometry and Trigonometry** Second semester; 5 lecture hours. 3 credits. Prerequisite: Mathematics 109. • A course in applied analytical geometry and trigonometry including exponents, radical proportions, binomial expansion, complex numbers, simultaneous linear equations, quadratic equations, and conic sections. For engineering technology students only.

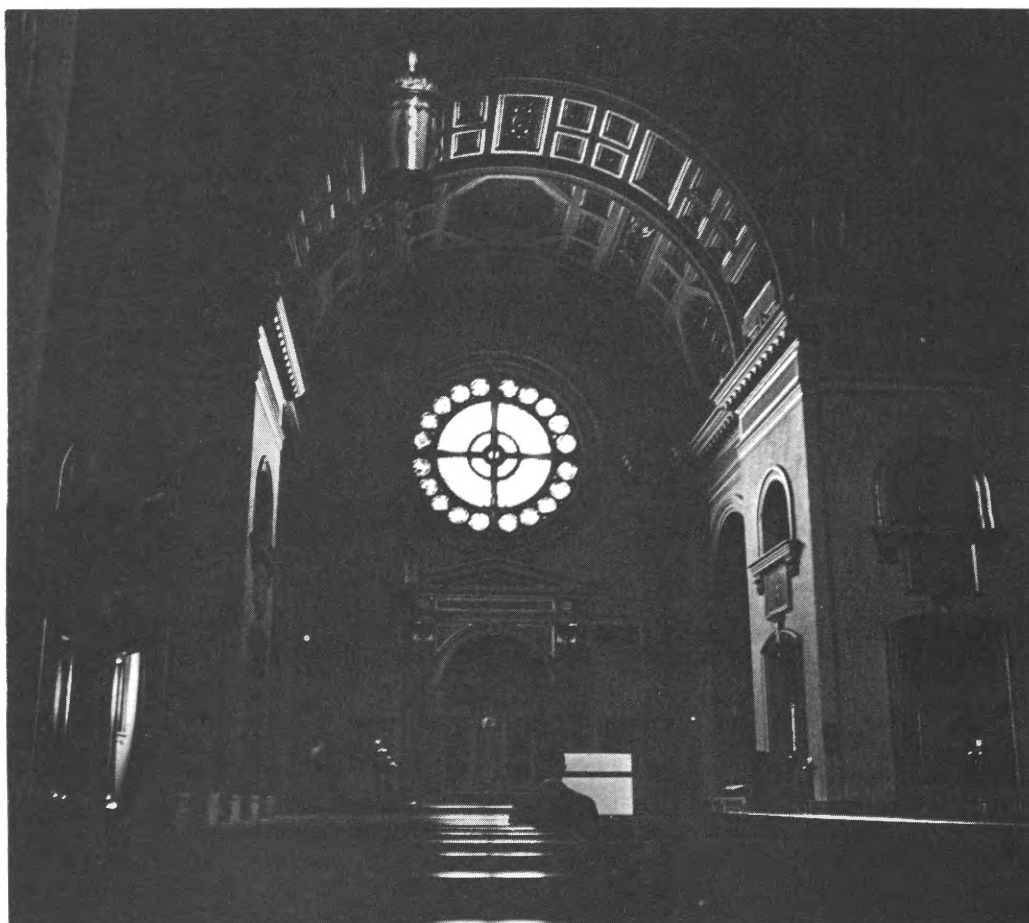
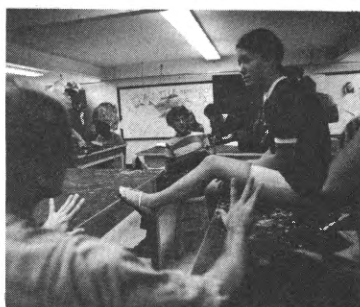
**Mathematics 121-122 Applied Algebra and Trigonometry** Continuous course; 5 lecture hours. 3-3 credits. • Emphasis is placed on the continuous use of the slide rule in problem solving techniques. Included are algebraic functions, graphs, radicals and exponents, roots, linear equations, simultaneous linear equations, quadratic equations, expansions and progression, determinants, complex numbers, vectors, trigonometric formulas, and equations.

**Mathematics 207 Vector Analysis and Calculus** First semester; 3 lecture hours. 3 credits. Prerequisite: Mathematics 109-110. • A course including trigonometry through logarithmic solution of oblique triangles, vector analysis, complex notation, vector algebra, elementary differential and integral calculus. For engineering technology students only.

**Mathematics 221 Applied Calculus** First semester course; 3 lecture hours. 3 credits. • A specialized course involving the application of calculus to electronic and electrical circuits including fundamental concepts; differentiation and integration of algebra, trigonometric, logarithmic, exponential and hyperbolic functions. For engineering technology students only.

**Physics 127-128 Applied Physics** Continuous course; 3 lecture and 3 laboratory hours. 4-4 credits. • A survey course introducing the student to physical principles, scientific investigation, and experimentation. Includes studies of heat, mechanics, sound, and light. Emphasis is placed on applications of principles on problem solving and on writing reports based on laboratory experimental work. For engineering technology students only.

**Physics 209-210 Applied Physics** Continuous course; 3 lecture and 3 laboratory hours. 4 credits each semester. • First semester: Principles and practical applications of heat, mechanics, sound, and properties of matter. Second semester: Principles and practical application of electricity, light, and modern physics. Scientific investigation, experimentation, and reporting procedures are included.



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## **SCHOOL OF OCCUPATIONAL THERAPY**

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**CORNELIUS A. KOOIMAN, Director**

**ELEANOR V. WOLFE, Assistant Director**

**Richard Armstrong / Charels Cohen / Pat Condrey / Dellvina Gross  
Bernard Lublin / Thomas Romeo / Dorothy Saxton / Mary Schropfer  
Weir Tucker**

The school of occupational therapy is part of the school of allied health professions, Medical College of Virginia.

Occupational therapy is the art and science of directing man's response to selected activity to promote and maintain health, to prevent disability, to evaluate behavior, and to treat or train patients with physical or psychosocial dysfunction.

Occupational therapy is used in mental hospitals and clinics; rehabilitation centers; curative workshops; orthopedic, general, and children's hospitals; hospitals and schools for crippled children; hospitals and schools for the blind and deaf; tuberculosis sanatoria; penal institutions; and home service programs. Trained occupational therapists serving in military hospitals are commissioned officers.

The Virginia Commonwealth University program is approved by the American Occupational Therapy Association and is accredited by the Council on Medical Education of the American Medical Association and leads to eligibility for registration in the American Occupational Therapy Association.

**Requirements for Admission** An applicant for admission to the school of occupational therapy must be a graduate of an accredited high school with a "C+" or above average.

It is desirable for students pursuing a program in occupational therapy to have included in their high school work courses in chemistry or physics and biology. Foreign language is also desirable.

All candidates are required to present evidence of good character, general physical fitness, and emotional stability.

The University reserves the right to refuse admission to the courses in occupational therapy or to require the withdrawal of a student or to withhold the degree or certificate if, in the opinion of the authorities, the applicant is not adapted to the academic or clinical program. A battery of tests may be administered after the student is enrolled, and exploratory counseling may be recommended.

A personal interview is required for all college graduates and transfer students. If distance prevents the applicant from coming to Richmond, arrangements may be made to have the interview with a qualified occupational therapist selected by this school near the student's own home.

The school of occupational therapy offers three programs:

1. A curriculum leading to the bachelor of science in occupational therapy degree, which requires the completion of a minimum of 125 credits of course work, plus nine months of clinical affiliation.
2. Certificate program in occupational therapy. Candidates of this program must hold a bachelor's degree from an accredited college or university. Student must have completed 12 semester hours in psychology; 6 semester hours in sociology; 6 semester hours in art. This program is a three-semester course plus eight months of clinical experience.
3. Master's degree program. This program leads to the master of science in occupational therapy degree. It has the same requirements for admission as those indicated in the preceding paragraph. This program is four semesters in length, including a thesis, plus eight months of clinical experience.

For additional information in the post-baccalaureate programs listed above, write: Coordinator, Graduate Program, School of Occupational Therapy, Virginia Commonwealth University, Academic Center, Richmond, Virginia 23220.

### Undergraduate Curriculum in Occupational Therapy\*

	Credits	
	1st Sem.	2nd Sem.
<i>First Year</i>		
Art Education 121-122. Principles of Art.....	2	2
Biology 101-102. General Biology .....	4	4
English 101-102. Composition and Literature .....	3	3
Occupational Therapy 102. Survey of Occupational Therapy	2	—
Occupational Therapy 111. General Crafts .....	—	2
Psychology 201-202. General Psychology .....	3	3
Physical Education .....	1	1
	15	15

\* The occupational therapy curriculum is currently undergoing some revisions. Thus, students entering any program under this Bulletin must anticipate the possibility of further modifications.

	<i>Credits</i>	
	<i>1st</i>	<i>2nd</i>
	<i>Sem.</i>	<i>Sem.</i>
<i>Second Year</i>		
Crafts 225. Ceramics .....	—	2
Crafts 220. Woodworking .....	3	—
Crafts 363. Weaving .....	—	2
Biology 206. Physiology .....	4	—
English 201-202. Western World Literature .....	3	3
Occupational Therapy 201. Clinical Observation .....	2	—
Psychology 304. Development Psychology .....	—	3
Sociology 201. General Sociology .....	3	—
Sociology 333. Introductory Anthropology or		
Approved Elective. Sociology .....	—	3
Physical Education .....	1	1
Electives .....	—	3
	<hr/>	
	16	17
<i>Third Year</i>		
Biology 305. Human Anatomy .....	4	—
Biology 425. Kinesiology .....	—	2
Biology 429. Neuroanatomy .....	—	3
Occupational Therapy 216. Therapeutic Modalities .....	3	—
Occupational Therapy 301. Preventive Occupational Therapy .....	—	3
Occupational Therapy 302. Evaluative Measure in Occupational Therapy .....	—	3
Occupational Therapy 312. Pediatrics .....	—	2
Occupational Therapy 317. Group Process .....	2	—
Occupational Therapy 332. Medical Lectures I .....	2	—
Psychology 409. Psychology of Personality .....	3	—
Electives .....	—	3
	<hr/>	
	14	16
<i>Fourth Year</i>		
Occupational Therapy 401. Theory in Psychosocial Dysfunction .....	—	3
Occupational Therapy 402. Theory in Physical Dysfunction .....	3	—
Occupational Therapy 404. Rehabilitation .....	—	3
Occupational Therapy 406. Directed Studies in Occupational Therapy .....	2	—
Occupational Therapy 433. Medical Lectures II .....	2	—
Occupational Therapy 434. Medical Lectures III .....	—	2
Occupational Therapy 435. Psychiatry .....	2	—
Psychology 311. Introduction to Statistics .....	3	—
Electives .....	4	8
	<hr/>	
	16	16



**COURSES IN OCCUPATIONAL THERAPY**

**Occupational Therapy 102 Survey of Occupational Therapy** Both semesters; 2 lecture hours. 2 credits. Prerequisite: consent of instructor. • History, development, and function of occupational therapy. The contemporary scene.

**Occupational Therapy 111 General Crafts** Both semesters; 4 laboratory hours. 2 credits. • Designed to give the student a working knowledge of basic processes in various minor crafts with a view of physical and psychological involvement in activity. Laboratory fee \$2.50.

**Occupational Therapy 201 Clinical Observation** Both semesters. 1 seminar hour and 4 laboratory hours. 2 credits. • Assignment in selected occupational therapy clinics for observation of patient treatment. Introduction to medical terminology.

**Occupational Therapy 216 Therapeutic Modalities** First semester; 1 lecture hour and 4 laboratory hours. 3 credits. Prerequisite: Crafts 220. • Orientation to techniques and equipment used to foster independence and adjustment to disability; activities of daily living, orthotics, and adapted equipment.

**Occupational Therapy 301 Preventive Occupational Therapy** Second semester; 3 lecture hours. 3 credits. Prerequisite: Occupational Therapy 332. • Theory of occupational therapy with general medical conditions, pediatrics, cerebral palsy, geriatrics, etc.

**Occupational Therapy 302 Evaluative Measures in Occupational Therapy** Second semester; 1 lecture hour and 4 laboratory hours. 3 credits. Prerequisites: Occupational Therapy 216, Biology 305. • Practice in performance and interpretation of standard measures of disability evaluation used in occupational therapy. Field work included.

**Occupational Therapy 312 Pediatrics** Second semester; 1 lecture hour and 2 laboratory hours. 2 credits. Prerequisite: junior standing occupational therapy major. • Basic activities and perceptual readiness skills are studied in a developmental framework.

**Occupational Therapy 317 Group Process** First semester; 4 laboratory hours. 2 credits. Prerequisite: junior standing occupational therapy major. • Study of group interaction processes and interpersonal relationship dynamics, with special emphasis on the awareness of understanding self in the use of group techniques in occupational therapy.

**Occupational Therapy 332 Medical Lectures I** First semester; 2 lecture hours. 2 credits. Prerequisites: Biology 206, concurrent with Biology 305. • Study of variety of general medical symptoms, etiology, and treatment.

**Occupational Therapy 401 Theory in Psychosocial Dysfunction** Both semesters; 3 lecture hours. 3 credits. Prerequisite: Occupational Therapy 317; 9 credits in psychology, psychiatry. • Applications of the principles of occupational therapy to neuropsychiatric conditions.

**Occupational Therapy 402 Theory in Physical Dysfunction** Both semesters; 3 lecture hours. 3 credits. Prerequisite: senior standing occupational therapy major. • Deals with the application of occupational therapy techniques in the treatment of patients with physical injuries or disabilities. It includes the general aims of occupational therapy in contributing to the total adjust-

ment of the patient with a physical disability and the specific principles of treatment.

**Occupational Therapy 404 Rehabilitation** Second semester; 3 lecture hours. 3 credits. Prerequisite: senior standing occupational therapy major. • General principles of rehabilitation. A survey of public and private agencies taking part in rehabilitation. The function of agencies is covered as well as methods in which services are rendered. Principles of work evaluation. Includes principles and practice of job analysis, organization, and administration of an occupational therapy department.

**Occupational Therapy 406 Directed Studies in Occupational Therapy** Both semesters; hours arranged. 2 credits. Prerequisites: senior standing occupational therapy major and consent of instructor. • Independent reading, seminar discussion, research methods, observation, and/or clinical experience.

**Occupational Therapy 411 Advanced Theory in Psychosocial Dysfunctions** Second semester; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: Occupational Therapy 401. • Advanced theory, application of media and techniques for specific psychosocial dysfunctions.

**Occupational Therapy 412 Advanced Theory in Physical Dysfunctions** Second semester; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: Occupational Therapy 402. • Advanced theory, application of media and equipment for specific physical dysfunctions.

**Occupational Therapy 433 Medical Lectures II** First semester; 2 lecture hours. 2 credits. Prerequisite: senior standing occupational therapy student. • Study of neurological and orthopedic conditions from the standpoint of etiology, prognosis, clinical signs and symptoms, and treatments.

**Occupational Therapy 434 Medical Lectures III** Second semester; 2 lecture hours. 2 credits. Prerequisite: Occupational Therapy 433. • Physical medicine and rehabilitation treatment of major diagnostic entities.

**Occupational Therapy 435 Psychiatry** First semester; 2 lecture hours. 2 credits. Prerequisite: senior standing occupational therapy major. • A study of personality development, ego defenses, and mental disorders. Etiology, prognosis, and treatment of mental disorders, including psychopathology.

**Occupational Therapy 465-466-467 Clinical Affiliation** 9 credits. Full-time for a minimum of nine months following the academic portion of either program. Practical experience under the supervision of registered therapist in approved training centers arranged by the department. This includes:

- 3 months—physical dysfunction
- 3 months—psycho-social dysfunction
- 3 months—general

Upon satisfactory completion of all affiliations, the student is awarded a certificate in occupational therapy and is eligible, upon recommendation of the school, to write the examination for professional registration conducted by the American Occupational Therapy Association. The student must begin the clinical program within one year after he completes the requirements for the bachelor's degree, and complete the nine months' training within two years to be eligible for a certificate.



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## **SCHOOL OF SOCIAL WORK**

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**RICHARD LODGE, Dean**

**ELAINE ROTHENBERG, Associate Dean**

**Alice Barber / Edward Carpenter / Sidney Clearfield\* / H. Otto Dahlke  
Willie Dell / Margaret Foley / Marion Foster / MacDonald Franklin, Jr.  
Hilda Gold / Grace Harris / Charles Itzkovitz / Lucie Johnson  
Jean B. Jones / Virous Jones / George T. Kalif / Thomas Keenan  
Lionel Lane / Anne Montague / Ellen Ostrow / William Pearman  
Dojelo Russell\* / Mary Schreiber / Charlotte Schrieberg  
Margaret Schubert / C. Bernard Scotch / Florence Segal / Emanuel Tropp  
Ruby Walker / Robert E. Young**

The school of social work offers a two-year graduate professional curriculum for social work, leading to the degree of master of social work. The program prepares students for practice in many different kinds of agencies; concentrations are available in community organization-social planning, social casework and social group work. Students elect one of these before beginning the program; under certain circumstances change in a concentration is possible during the first year.

The overall objectives of the program are to enable students to become social workers with ability: (1) to meet the needs of clients in a way that fosters maximum social functioning and self-actualization, (2) to participate in promoting the kind of society that fosters such self-realization, and (3) to examine critically social work practice and the provision of social

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\* On educational leave.

services with dedication to the people and purposes that social workers serve.

To enable the student to develop professional competence and skill, the integrated class and field work curriculum offers opportunities to acquire a substantial knowledge based in (1) the methods of social work practice, (2) the patterns of individual, group and community behavior as they interact with each other and the social milieu, (3) the development, organization and operation of social welfare programs and policies, and (4) the methods of scientific inquiry in social work.

All students in the school of social work have the same basic program, which includes two years of field instruction as part of a progressively more advanced curriculum over the four semester period. The area of the student's concentration determines the nature of his advanced method courses in his field work assignments.

The school of social work publishes a separate catalogue, which is available on request.



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Robert A. Wilson . . . . . Vice-Rector  
Richard Obenshain . . . . . Secretary

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Virginus Dabney	S. Buford Scott
James W. Mullen II	Mrs. Robert M. Stone, Jr.

*To July 1, 1972*

Wyndham B. Blanton IV	Robert A. Wilson
Eppa Hunton IV	

*To July 1, 1974*

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Miss Barbara Keyser	John H. Temple
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 Alfred T. Matthews, B.A., M.A., Ph.D. . . . . *Dean of Student Life*  
 Gerard B. McCabe, B.A., M.A.L.S., M.A. . . . . *Director of University Libraries*

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 Lewis C. Goldstein, B.S., M.S., Ph.D. . . . . *Assistant Dean, School of Arts  
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 J. Curtis Hall, A.B., M.S., Ed.D. . . . . *Dean, School of Business*  
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 Richard Lodge, B.A., M.S.W., D.S.W. . . . . *Dean, School of Social Work*  
 Elaine Z. Rothenberg, A.B., M.S.S. . . . . *Associate Dean, School of Social Work*  
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**ADMINISTRATIVE SERVICES—ACADEMIC DIVISION**

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 John D. Call, M.D. . . . . *College Physician*  
 Joseph P. Ciolek, B.S. . . . . *Director of Registration and Systems Control*  
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Jane Bell Gladding, B.A., M.S. . . . . *Associate Dean, Student Life*  
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 F. Dana Payne. . . . . *Coordinator of Academic Advising*  
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 Anne M. Stephenson, B.S. . . . . *Director of Scheduling*  
 Milton I. Wallace, B.S., M.S. . . . . *Director, Physical Plant*  
 Ernest V. Woodall . . . . . *Bursar*  
 Vincent F. Wright, B.A. . . . . *Assistant Dean, Student Affairs*

### INSTRUCTIONAL STAFF (1970-1971)

The date after each name indicates year of appointment.

ABDELSAMAD, MOUSTAFA H. (1968) . . . *Assistant Professor of Business*  
 B.Com., Cairo University; M.B.A., D.B.A., George Washing-  
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 B.S., M.S., Ph.D., Texas Christian University.

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 B.S., Rhode Island State College; M.Ed., Boston University.

AMPOLO, O'DEAN (1967)\*\*\* . . . . . *Instructor of Physical Education* —

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ANKENEY, JOHN V. (1957) . . . . . *Professor of Engineering Technology and*  
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 B.S., West Virginia Institute of Technology; M.S.Ed., Cornell  
 University.

APGAR, NICHOLAS A. (1962) . . *Associate Professor of Communication Arts*  
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 B.F.A., M.F.A., Syracuse University.

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 B.A., Randolph-Macon College; M.A., Vanderbilt University;  
 Ph.D., University of Georgia.

ARMSTRONG, JOHN J. (1968) . . . . . *Assistant Professor of Interior Design*  
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ARRINGTON, DALE E. (1969) . . . . . *Assistant Professor of Chemistry*  
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- ASPLUND, KENNETH K. (1969) . . . . . *Assistant Professor of Biology*  
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- AYRES, RAY M. (1969) . . . . . *Assistant Professor of Business and  
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- BACHMANN, JOHN A. (1970) . . . . . *Assistant Professor of Business  
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B.S., M.S., Ph.D., Virginia Polytechnic Institute.
- BAILEY, JAMES W. (1964) . . . . . *Professor of Education*  
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- BAILEY, KENT G. (1968) . . . . . *Assistant Professor of Psychology*  
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- BAILEY, LARRY P. (1969) . . . . . *Assistant Professor of Accounting*  
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- BALL, HOWARD GEORGE (1969) . . . . . *Assistant Professor of Distributive  
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- BARBER, ALICE L. (1964) . . . . . *Associate Professor of Social Work*  
B.A., Southeastern Louisiana College; M.S.S.W., Tulane University School of Social Work.
- BASS, ROBERT G. (1962) . . . . . *Associate Professor of Chemistry*  
B.S., Virginia Polytechnic Institute; Ph.D., University of Virginia.
- BATTY, L. WAYNE (1949) . . . . . *Professor of Music  
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- BAYLISS, J. TEMPLE (1967) . . . . . *Assistant Professor of Physics*  
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- BEALE, ANDREW V. (1969) . . . . . *Assistant Professor of Counselor Education*  
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- BEALL, LARRY GILBERT (1970) . . . . . *Assistant Professor of Economics*  
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- BEATON, WILLIAM R. (1970) . . . . . *Professor of Business Administration  
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- BECHTEL, WILLIAM A. (1967) . . . . . *Assistant Professor of Law Enforcement*  
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- BONDS, MAURICE (1942) . . . . . *Professor of Art History*  
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B.F.A., Richmond Professional Institute; M.A., Columbia Uni-  
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- BOONE, JEAN P. (1969) . . . . . *Instructor in Social Welfare*  
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- CAMPBELL, JEWETT (1947) . . . . .*Associate Professor of Painting and Printmaking*  
New York Art Students' League (three years); Skowhegan School of Painting and Sculpture (two summers); Hans Hofmann School of Art (two summers).
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- CHERRY, MILTON (1950) . . . . .*Professor of Music*  
B.M., American Conservatory of Music; M.M., Chicago Musical College; private pupil of Hugo Kortschak, New York City.
- CHILDREY, FRANK W. (1969) . . . . .*Instructor in English*  
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- CLEARFIELD, SIDNEY M. (1967)\*\* . . . . . *Assistant Professor of Social Work*  
B.S., Temple University; M.S.W., University of Pennsylvania.
- COFFMAN, EDWARD N. (1966) . . . . . *Assistant Professor of Accounting*  
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- COHEN, STEPHEN B. (1968) . . . . . *Assistant Professor of Mathematics*  
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- CIOLEK, JOSEPH P. (1970) . . . . . *Instructor and Director of Registration and —*  
*Systems Control*  
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- COLVIN, CRAIG R. (1969) . . . . . *Assistant Professor of Rehabilitation*  
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- CONE, ROBERT T. C. (1968) . . . . . *Instructor of Economics —*  
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- CONNORS, JOYCE Z. (1968) . . . . . *Instructor of English —*  
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- COPPAGE, PHILIP R. (1968) . . . . . *Instructor of Physical Education —*  
B.A., Randolph-Macon College; M.A., University of Maryland.
- COPPEDGE, PATRICIA C. (1968)\*\*\* . . . . . *Instructor of Dramatic Art*  
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- COPPEDGE, WALTER R. (1968) . . . . . *Professor of English and Assistant*  
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B.A., University of Mississippi; B.Litt., Oxford University;  
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- CORBETT, JAMES E., JR. (1961) . . . . . *Instructor of Engineering Technology —*  
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- COWARDIN, CORINNE S. (1969) . . . . . *Instructor and Assistant Dean —*  
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\*\*\* Part-time.

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- CULP, MARY ELIZABETH (1969) . . . . . *Instructor of English*  
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B.A., Vassar College; M.A., University of Richmond.
- DAHLKE, H. OTTO (1966) . . . . . *Professor of Social Work*  
B.A., M.A., University of Illinois; Ph.D., University of Wisconsin; 3rd Year Certificate in Social Work, University of Pennsylvania.
- DASHEK, WILLIAM VINCENT (1970) . . . . . *Assistant Professor of Biology*  
B.S., M.S., Ph.D., Marquette University.
- DAVIS, FAIRFAX G. (1959) . . *Assistant Professor of Engineering Technology*  
B.S., Randolph-Macon College; M.S., Richmond Professional Institute.
- DAVIS, HERBERT J. (1969)\*\* . . . . . *Assistant Professor of Business*  
B.S., Villanova University; M.B.A., East Carolina University.
- DEAL, ALICE BOYD (1970) . . . . . *Assistant Professor and Librarian for*  
*the School of the Arts*  
B.A., University of North Dakota; M.A., University of Cincinnati; B.S.L.S., Case Western Reserve.
- DEGENARO, GUY J. (1970) . . . . . *Assistant Professor of Business*  
*Administration and Management*  
B.S., University of Maryland; M.B.A., Indiana University.
- DELL, WILLIE J. (1969) . . . . . *Assistant Professor of Social Work*  
B.A., St. Augustine's College; M.S.W., Richmond Professional Institute.
- DENTON, PEGGY W. (1970) . . . . . *Instructor of Education*  
B.S., M.A., East Carolina University.
- DIANA, JEANNE E. (1968) . . . . . *Associate Professor of Social Welfare*  
B.S., Juniata College; M.L., Ph.D., University of Pittsburgh.

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\*\* Educational Leave.



- DIANA, LEWIS (1968) . . . . . *Professor of Sociology and  
Chairman of the Department*  
A.B., Harvard University; M.A., Ph.D., University of Pitts-  
burgh.
- DINTIMAN, GEORGE B. (1968) . . . *Associate Professor of Physical Education  
and Chairman of Physical Education Department*  
B.S., Lock Haven State College; M.A., New York University;  
Ed.D., Columbia University.
- DONATO, GERALD M. (1967) . . . . . *Instructor of Painting and Printmaking*  
B.S., M.A., Northern Illinois University; M.F.A., University of  
Wisconsin.
- DOUGHERTY, RAMON M. (1969) . . . *Instructor of Painting and Printmaking*  
B.F.A., M.F.A., California College of Arts and Crafts.
- DOWDY, MARSHALL D. (1967) . . . . . *Instructor of Retailing*  
B.S., Richmond Professional Institute; M.S., Virginia Com-  
monwealth University.
- DRAKE, MARGARET S. (1967)\*\*\* . . . *Instructor of Engineering Technology*  
B.S., M.S., University of Tennessee.
- DRISCOLL, NANCY A. (1957) . . . *Assistant Professor of Physical Education*  
A.B., College of William and Mary; M.S., University of  
Richmond.
- DUFF, JAMES W., JR. (1969) . . . . . *Instructor of Business*  
B.S., Western Carolina University; M.S., Virginia Common-  
wealth University.
- DUKE, ELIZABETH F. (1966) . . . . . *Assistant Professor of English*  
B.A., Longwood College; M.A., University of Virginia; Ph.D.,  
University of Iowa.
- DUKE, J. MAURICE (1966) . . . . . *Assistant Professor of English*  
A.B., College of William and Mary; M.A., Ph.D., University  
of Iowa.
- DUNCAN, JACK A. (1970) . . . . . *Associate Professor of Education*  
B.S., Millersville State College; M.Ed., Temple University;  
Ed.D., University of Georgia.
- DUNN, HAROLD E. (1970) . . . . . *Instructor and Cataloger in Library*  
B.A., University of Mississippi; M.L.S., Rutgers University.
- DuVERNAY, ROBERT P., JR. (1969) . . . *Instructor of Information Systems*  
B.S., M.S., University of Southwestern Louisiana.
- EASTMAN, ALLAN A. (1950) . . . . . *Professor of Crafts*  
B.S., University of New York at Buffalo; Diploma in Art Edu-  
cation, Pratt Institute; Diploma in Design, Vesper George  
School of Art.

- ECK, FRANCIS T. (1969).....*Instructor of Business*  
B.S., Villanova University; LL.B., University of Richmond.
- EDWARDS, WILLIAM O. (1960).....*Associate Professor of Business*  
*and Director of Development*  
B.S., M.A., University of Missouri.
- ELLIS, JO ANN (1968).....*Instructor of Business*  
B.S., Atlantic Christian College; M.Ed., University of North  
Carolina.
- ELY, JAMES W., JR. (1970).....*Assistant Professor of History*  
B.A., Princeton University; LL.B., Harvard School of Law;  
M.A., University of Virginia.
- ELY, VIVIEN KING (1962)....*Associate Professor and Acting Chairman of*  
*Distributive Education*  
B.S., East Tennessee State College; M.S., Richmond Profes-  
sional Institute.
- EPPS, JEAN M. (1969).....*Instructor in Distributive Education*  
B.S., Virginia State College; M.S., Virginia Commonwealth  
University.
- ? — EPPS, ROZANNE G. (1943).....*Instructor and Assistant to the Director*  
*of Evening College and Summer School*  
B.A., Vassar College.
- ERICKSON, MAURICE LEONARD (1970).....*Instructor in Dramatic Art*  
*and Speech*  
B.S., Dickinson State College; M.F.A., Ohio University.
- ETKIN, MICHAEL W. (1969).....*Assistant Professor of Psychology*  
B.S., New York University; M.S., Ph.D., Rutgers-The State  
University.
- FALKE, DAVID R. (1963).....*Assistant Professor of Business*  
B.S., University of Pittsburgh; M.B.A., University of Mary-  
land.
- FALLEN, NANCY H. (1967).....*Assistant Professor of Special Education*  
B.S., Mary Washington College; M.Ed., College of William  
and Mary.
- FARLEY, REUBEN W. (1968).....*Assistant Professor of Mathematics*  
B.S., Randolph-Macon College; M.A., Ph.D., University of  
Tennessee.
- FAULS, JOHN T. (1966).....*Associate Professor of Psychology*  
A.B., Harvard University; Ph.D., Florida State University.
- FAWLEY, LOUISA P. (1965).....*Instructor of English*  
B.A., Westhampton College; M.A., Columbia University.
- FEDERICO, SALVATORE L. (1967)..*Instructor of Painting and Printmaking*  
B.F.A., Richmond Professional Institute; M.A., Hunter Col-  
lege.

- FERGUSON, BOBBY R. (1964) . . . . . *Assistant Professor and Acting  
Chairman Department of Marketing*  
B.A., Roanoke College; M.S., Virginia Polytechnic Institute.
- FERGUSON, CLINTON S. (1959) . . . . . *Associate Professor of Economics*  
B.B.A., University of Chattanooga; M.S., University of Tennessee.
- FERGUSON, JERRY THOMAS (1965) . . . . . *Assistant Professor of Business*  
B.S., M.S., Virginia Polytechnic Institute.
- FETZER, LARRY D. (1968) . . . . . *Instructor of Accounting* —  
B.B.A., Evangel College; M.S.B.A., University of Denver;  
C.P.A.
- FFOLIOTT, CHARLES F. (1967) . . . . . *Assistant Professor of Physics*  
E.E., M.S., Rensselaer Polytechnic Institute.
- FIELD, JERRY JEWETT (1961) . . . . . *Associate Professor of Interior Design*  
B.S., Certificate in Interior Design, Richmond Professional  
Institute; Diploma, Parsons School of Design.
- FINLEY, LAWRENCE K. (1970) . . . . . *Assistant Professor of Business  
Administration and Management*  
B.B.A., M.B.A., North Texas State University.
- FISHER, MARCIA F. (1970) . . . . . *Instructor and Assistant to the Director* —  
*of Evening School and Summer School*  
A.B., Brown University; M.A., University of Connecticut.
- FITZPATRICK, MARY JANE (1970) . . . . . *Instructor of Music* —  
B.A., Mary Washington College; M.A., University of Iowa.
- FLEMING, ROBERT S. (1968) . . . . . *Professor of Education*  
A.B., East Carolina College; M.A., George Peabody College;  
Ed.D., New York University.
- FLESHOOD, ARNOLD PENDLETON (1965) . . . . . *Professor of Education  
and Dean of School of Education*  
B.A., University of Richmond; M.S., Virginia Polytechnic  
Institute; Ed.D., Columbia University.
- FLETCHER, CHARLES E. (1967)\*\* . . . . . *Assistant Professor of Business*  
B.S., University of Alabama; M.A., New Mexico Highlands  
University.
- FLOWERS, ALICE FUNKHOUSER (1970)\*\*\* . . . . . *Instructor of Dramatic Art  
and Speech*  
B.A., Mary Washington College; M.A., University of Virginia.
- FOLEY, MARGARET D. (1969) . . . . . *Assistant Professor of Social Work*  
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\*\* On Educational leave.

\*\*\*Part-time.

- FORREST, JOYCE M. (1969) . . . . . *Instructor of Information Systems*  
B.S., Richmond Professional Institute; M.S., Virginia Commonwealth University.
- FORTUNE, MARY E. (1970) . . . . . *Assistant Professor of Recreation*  
B.A., Shorter College; M.S., Ph.D., University of North Carolina.
- FOSTER, ANN T. (1969) . . . . . *Instructor of English*  
B.A., Florida State University; M.A., Vanderbilt University.
- FOSTER, CHARLES A. B. (1946) . . . . . *Professor of Engineering and  
Coordinator of Curriculum in Engineering*  
B.S., M.S., Virginia Polytechnic Institute.
- FOSTER, MARION GOLD (1970) . . . . . *Assistant Professor of Social Work*  
B.A., University of Minnesota; M.S.W., Howard University.
- FRANCES, ALBERT S. (1970) . . . . . *Professor of Sociology and Anthropology*  
B.A., University of Madrid (Spain); LL.D., University of Oviedo (Spain); Ph.D., University of Pittsburgh.
- FRANKLIN, McDONALD, JR. (1969) . . . . . *Assistant Professor of Social Work*  
B.S., St. Paul's College; M.S.S.W., Richmond Professional Institute.
- FREASIER, BARNEY R., SR. (1968) . . . . . *Associate Professor of Philosophy  
and Religion*  
B.A., Ouachita Baptist University; B.D., Southern Baptist Theological Seminary; Th.D., Immanuel Baptist Seminary.
- FREASIER, BARNEY R., JR. (1967) . . . . . *Assistant Professor of Accounting*  
B.S., University of Richmond; M.S., Richmond Professional Institute; CPA; J.D., College of William and Mary.
- FREED, DAVID C. (1966) . . . . . *Assistant Professor of Painting and  
Printmaking*  
B.F.A., Miami University (Ohio); M.F.A., University of Iowa; Royal College of Art, London (1 year).
- FREEMAN, GERTRUDE B. (1967) . . . . . *Assistant Professor of Education*  
B.S., Hampton Institute; M.A., New York University.
- FRIEDMAN, WILLIAM H. (1969) . . . . . *Assistant Professor of Philosophy*  
B.A., M.A., University of Pennsylvania; B.H.L., Gratz College; Ph.D., University of Virginia.
- FULBRIGHT, EVELYN R. (1968) . . . . . *Professor of Education and Chairman  
of Department of Elementary Education*  
A.B., M.A., Marshall University; Ed.D., Duke University.
- GABET, YVONNE H. (1970) . . . . . *Assistant Professor of Psychology*  
B.S., University of Houston.
- GAIROLA, KRISHNA C. (1969) . . . . . *Assistant Professor of Art History*  
B.A., M.A., Allahabad University; Ph.D., London University; D.E.L., Ecole du Louvre.
- GALLAGHER, SHARON (1969) . . . . . *Assistant Professor of Art History*  
B.A., M.A., Pennsylvania State University.

- GARGIULO, RAYMOND JOSEPH (1970) . . . *Assistant Professor of Elementary Education*  
B.S., M.Ed., Ohio University; Ed.D., University of New Mexico.
- GERVIN, SPENCER R. (1968) . . . . . *Associate Professor of Economics*  
B.S., East Tennessee State University; A.M., Ph.D., Duke University.
- GIBBY, ROBERT G. (1961)\*\*\* . . . . . *Professor of Psychology*  
B.A., M.A., Ohio State; Ph.D., University of Michigan.
- GIBBY, ROBERT G., JR. (1964) . . . . . *Assistant Professor of Psychology*  
B.A., University of Richmond; M.A., Ph.D., Catholic University.
- GILBERT, KATHERINE N. (1969) . . . . . *Instructor in Art History* —  
B.F.A., Richmond Professional Institute.
- GILFOYLE, ATALISSA S. (1968) . . . . . *Instructor of English* —  
B.A., College of William and Mary; M.A., State University of New York at Buffalo.
- GILLESPIE, JAMES D. (1966)\*\*\* . . . . . *Instructor of Communication Arts and Design*  
B.F.A., Richmond Professional Institute.
- GLADDING, JANE B. (1947) . . . . . *Associate Professor of Chemistry and Associate Dean of Student Life*  
B.A., Smith College; M.S., University of Richmond.
- GLOVER, JACK D. (1967) . . . . . *Instructor of Art Education and Director Audio Visual Services* —  
B.F.A., John Herron Art Institute (Indianapolis); M.S., Indiana University.
- GLYNN, WILLIAM A. (1968) . . . . . *Associate Professor of Mathematics and Chairman of the Department*  
B.S., Northwestern University; M.S., Ph.D., Oklahoma State University.
- GOGGIN, WILLIAM F. (1966)\*\* . . . . . *Instructor of English* —  
A.B., College of William and Mary; M.Ed., University of Virginia.
- GOLD, HILDA (1958) . . . . . *Assistant Professor of Social Work*  
A.B., Douglass College; Diploma, New York School of Social Work.
- GOLDSTEIN, LEWIS C. (1955) . . . . . *Professor of Biology, Chairman of the Department, and Assistant Dean, School of Arts and Sciences*  
B.S., M.S., University of Richmond; Ph.D., University of Virginia.

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\*\*\* Part-time.

- GORDOU, ROBERT L. (1970).....*Instructor of History*  
B.A., Virginia Military Institute; M.A., University of Richmond.
- GOSSETT, CHARLESANA L. (1965).....*Instructor of Fashion Art* —  
B.F.A., Richmond Professional Institute.
- GRABINSKI, STEPHEN J. (1966).....*Instructor of Photography* —  
B.F.A., Philadelphia College of Art.
- GRAHAM, ANN L. (1967).....*Instructor of Business* —  
A.B., West Liberty College (West Virginia); M.Ed., University  
of Pittsburgh.
- GRANT, GEORGE C. (1969).....*Assistant Professor of Chemistry*  
B.A., Lehigh University; Ph.D., Rensselaer Polytechnic Insti-  
tute.
- GRATTAN, ROBERT, III (1969).....*Instructor in English* —  
B.S., Randolph-Macon College; M.A., University of Rich-  
mond.
- GREENE, THEODORE H. (1969).....*Assistant Professor of Dramatic Art*  
*and Speech*  
B.A., Valley State College; M.A., University of Southern  
California.
- GREENE, JANIPHER R. (1969).....*Instructor of Political Science* —  
B.A., Virginia Union University; M.S., Southern Connecticut  
State College.
- GREER, HAROLD E., JR. (1968).....*Assistant Professor of History*  
A.B., M.A., Ph.D., University of Alabama; Th.M., New Orleans  
Baptist Theological Seminary.
- GRIFFIN, CLAUDIUS W. (1960, 1969).....*Assistant Professor of English*  
B.S., M.A., University of Richmond.
- GRIFFIN, ELSIE A. (1970).....*Instructor of English* —  
B.A., North Carolina College; M.A., North Carolina College.
- GRIFFIN, JOHN E., JR. (1966).....*Instructor of Engineering* —  
B.S., M.A., Appalachian State Teachers College (North Caro-  
lina).
- GRIMSLEY, JAMES E. (1954)\*\*\*.....*Instructor of Journalism*  
A.B., College of William and Mary.
- GROMAN, WILLIAM D. (1965).....*Associate Professor of Psychology*  
B.A., M.S., University of Miami (Florida); Ph.D., Duke Uni-  
versity.
- GROSS, DELLVINA M. (1968).....*Assistant Professor of Occupational*  
*Therapy*  
B.A., The College of St. Catherine; M.A., Western Michigan  
University.

GROVES, BARNEY R. (1970) . . . . . *Associate Professor of Education and  
Director of Intramural Sports*  
B.S., Southeastern State College; M.S., Oklahoma University;  
Ph.D., Florida State University.

GUIDRY, CLARENCE A., JR. (1969) . . . . . *Instructor of Information Systems*  
B.S., M.S., University of Southwestern Louisiana.

GUNTER, BENNY D. (1965) . . . . . *Assistant Professor of Interior Design and  
Chairman of the Department*  
A.B., Bridgewater College; B.F.A., Richmond Professional  
Institute; M.Ed., University of Virginia.

HAAS, FREDERICK C. (1969) . . . . . *Associate Professor of Business*  
B.B.A., M.B.A., M.A., Hofstra College; Ph.D., University of  
Florida.

HAGUE, JAMES L. (1970) . . . . . *Assistant Professor of Law Enforcement*  
B.A., Washington and Lee University; LL.B., J.D., University  
of Michigan Law School.

HALE, VICKIE G. (1966) . . . . . *Instructor of Fashion Art*  
B.F.A., Richmond Professional Institute.

HALL, A. LEE (1954, 1963) \*\* . . . . . *Associate Professor of Business and  
Chairman of Department of Information Systems*  
B.S., M.S., Virginia Polytechnic Institute.

HALL, J. CURTIS (1962) . . . . . *Professor of Business and  
Dean of School of Business*  
A.B., Duke University; M.S., Virginia Polytechnic Institute;  
Ed.D., Columbia University.

HALL, THOMAS O., JR. (1967) . . . . . *Associate Professor of  
Philosophy and Religious Studies  
and Chairman of the Department*  
A.B., Hampden-Sydney College; B.D., Th.M., Th.D., South-  
western Baptist Theological Seminary.

HAMILTON, DOROTHY TENNENT (1946) . . . *Assistant Professor of Interior  
Design*  
Certificate in Interior Decoration, Richmond Professional  
Institute.

HAMM, GLENN B. (1969) . . . . . *Instructor in Art Education*  
B.F.A., M.F.A., Carnegie-Mellon University.

HARDY, DOROTHY M. (1961) . . . . . *Instructor of Interior Design*  
Certificate in Interior Design, Richmond Professional Insti-  
tute.

HARDY, RICHARD E. (1968) . . . . . *Associate Professor and Chairman of  
Department of Rehabilitation Counseling*  
B.S., Virginia Polytechnic Institute; M.S., Richmond Profes-  
sional Institute; A.G.S., Ed.D., University of Maryland.

\*\* Educational leave.

- HARPER, JARED VINCENT (1970). *Instructor of Sociology and Anthropology*  
B.A., Emory University; M.A., University of Georgia.
- HARRIS, GRACE E. (1967). . . . . *Assistant Professor of Social Work*  
B.S., Hampton Institute; M.S.S.W., Richmond Professional  
Institute.
- HARRY, GORDON B. (1968). . . . . *Instructor of Business*  
B.A., Randolph-Macon College; J.D., University of Richmond.
- HARTNETT, JOHN J. (1968). . . . . *Assistant Professor of Psychology*  
B.A., University of Vermont; M.S., North Carolina State  
University; Ph.D., Wayne State University.
- HAWKES, GLENN R. (1968). . . . . *Professor of Psychology*  
B.A., M.A., Ph.D., University of Virginia.
- HAWTHORNE, LILLIAN M. (1965). . . . . *Assistant Professor of Nursing*  
B.S., Medical College of Virginia; M.P.H., University of  
North Carolina.
- HAYMES, EDWARD R. (1969). . . . . *Assistant Professor of German*  
B.A., Lynchburg College; M.A., University of Virginia; Ph.D.,  
University of Erlangen.
- HAYMES, HARMON H. (1968). . . . . *Professor of Economics*  
*and Chairman of the Department*  
B.A., Lynchburg College; M.A., Ph.D., University of Virginia.
- HEBERT, BUDD H. (1970). . . . . *Assistant Professor of Geography and*  
*Urban Studies*  
B.S., M.S., Arizona State University.
- HELFGOTT, MYRON (1968). . . . . *Assistant Professor of Sculpture*  
B.A., M.F.A., Southern Illinois University.
- HENRY, CHARLES R. (1968). . . . . *Instructor of Sculpture*  
B.F.A., Cleveland Institute of Art; M.F.A., Cranbrook Acad-  
emy of Art.
- HENRY, NATHANIEL H. (1968). . . . . *Professor of English*  
B.A., M.A., Ph.D., University of North Carolina.
- HERZOG, NOELIE RODRIQUEZ (1970). . . . . *Instructor of Sociology and*  
*Anthropology*  
B.A., University of South Florida; M.A., University of Cali-  
fornia, Los Angeles.
- HESTER, ROBERT F. (1953). . . . . *Professor of Interior Design and*  
*Assistant Dean of the School of the Arts*  
B.S., Wake Forest College; Diploma, Parsons School of De-  
sign; M.A., Cornell University.
- HILL, ADA D. (1969). . . . . *Instructor in Education*  
B.A., St. Augustine's College; M.S., Virginia State College.
- HILTON, JOHN T. (1950). . . . . *Professor of Communication Arts*  
*and Design and Chairman of the Department*  
B.F.A., Yale School of Fine Arts; M.S., Institute of Design,  
Illinois Institute of Technology.



- HINTER-REITER, H. GILDA (1967) . . . . . *Associate Professor of Art History*  
B.A., Sir George Williams University (Canada); M.Ed., Pennsylvania State University.
- HOAD, MARIANNA (1969) . . . . . *Instructor of Dramatic Art*  
A.B., Oberlin College; M.A., University of Michigan.
- HOADLEY, LEONARD G. (1959) . . . . . *Associate Professor of Engineering*  
*Technology*  
B.E., Wisconsin State College; M.Ed., Colorado State University.
- HODGES, RAYMOND (1940) . . . . . *Professor Emeritus of Dramatic Art*  
*and Speech*  
B.S., State College, Bloomsburg, Pennsylvania; M.A., Teachers College, Columbia University.
- HOFFER, GEORGE EMIL (1970) . . . . . *Assistant Professor of Economics*  
B.S., University of Richmond; M.S., Virginia Polytechnic Institute.
- HOLLAND, GLORIA J. (1970) . . . . . *Instructor/Circulation Librarian*  
B.A., Mary Washington College; M.S.L.S., University of North Carolina.
- HOLLOWAY, C. THOMAS (1957, 1963) . . . *Associate Professor of Dramatic*  
*Art and Speech*  
B.F.A., Richmond Professional Institute; M.F.A., Boston University.
- HONEYCUTT, FAY C. (1966) 1970) . . . . . *Instructor of Retailing*  
B.A., Meredith College; M.S., University of North Carolina.
- HOOKE, JAMES F. (1970) . . . . . *Assistant Professor of Psychology*  
A.B., Brandeis University; Ph.D., University of Nebraska.
- HORI, KYOTSU (1970) . . . . . *Assistant Professor of History*  
B.A., Waseda University; M.A., Columbia University; Ph.D., Columbia University.
- HORMACHEA, CARROLL R. (1964) . . . . . *Assistant Professor of Law*  
*Enforcement and Advisor to the program in*  
*Law Enforcement*  
B.A., M.S., Trinity University.
- HORMACHEA, MARION M. (1964) . . . . . *Assistant Professor of Recreation*  
*and Chairman of the Department*  
B.S., Richmond Professional Institute; M.S., University of Richmond.
- HORNBUCKLE, PHYLLIS A. (1968) . . . . . *Assistant Professor of Psychology*  
A.B., Pfeiffer College; M.A., College of William and Mary; Ph.D., Emory University.
- HOUGHTON, CLARE G. (1965) . . . . . *Assistant Professor of Library Science*  
B.A., Radford College; M.A., George Peabody College for Teachers.

- HUBBARD, JEAN L. (1970) . . . *Instructor and Assistant Reference Librarian*  
B.A., Miami University (Ohio); A.M.L.S., University of Michigan.
- HUDGINS, HERMAN W. (1967) . . . . . *Instructor of Accounting*  
B.S., M.C., University of Richmond.
- HUGHES, MADELINE C. (1969) . . . . . *Assistant Professor of Psychology*  
B.S., Louisiana State University; M.S., Ph.D., University of Georgia.
- HUMPHREYS, NEIL J. (1969) . . . . . *Assistant Professor of Information Systems and Acting Chairman of Department*  
B.S., M.B.A., Drexel Institute of Technology; Ph.D., University of Pennsylvania.
- HUNT, EUGENE H. (1968) . . . . . *Associate Professor of Business*  
B.S., M.S., Richmond Professional Institute; Ed.D., University of Maryland.
- HUNTER, BETTY W. (1966) . . . . . *Assistant Professor of Counseling and Guidance*  
B.A., M.Ed., Longwood College; Ed.D., George Washington University.
- HUNTER, JACK R. (1957) \*\*\* . . . . . *Associate Professor of Journalism and Acting Chairman of the Department*  
B.A., University of Virginia.
- HUSSEY, CHERYL (1969) . . . . . *Instructor in Voice*  
B.M., Houghton College; M.M., Eastman School of Music.
- HUTCHINSON, JOHN D., IV (1967) . . *Assistant Professor of Rehabilitation Counseling*  
B.S., Virginia Polytechnic Institute; M.S., Richmond Professional Institute.
- HYNSON, PRISCILLA C. (1967) . . . . . *Associate Professor of Art Education*  
B.S., East Carolina College; M.A., Ed.D., George Peabody College.
- INGE, M. THOMAS (1969) . . . . . *Associate Professor of English*  
B.A., Randolph-Macon College; M.A., Ph.D., Vanderbilt University.
- INGOLD, DAVID EDWARD (1969) . . . . . *Instructor of English*  
A.B., North Carolina State University; M.A., University of North Carolina.
- INGRAM, MARVIN L. (1949) . . . . . *Professor of Economics*  
B.A., University of North Carolina; M.A., Ed.D., New York University.
- ITZKOVITZ, CHARLES (1969) . . . . . *Assistant Professor of Social Work*  
B.A., Brandeis University; M.S.W., Rutgers University.

JACKSON, RONALD H. (1966) . . . . . *Instructor of Painting and Printmaking*  
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JACOBSON, SYLVAN (1968) \*\*\* . . . . . *Instructor of Fashion Design*  
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JARRELL, GEORGE R. (1969) . . . . . *Associate Professor of Rehabilitation*  
*Counseling*  
B.S., M.S., University of Florida; Ph.D., University of South  
Carolina.

JEFFREY, JACKSON E. (1962) . . . . . *Associate Professor of Biology*  
B.S., Richmond Professional Institute; R. P. T. and Certificate  
in Physical Therapy, Medical College of Virginia; M.S., Vir-  
ginia Polytechnic Institute; Ph.D., Medical College of Vir-  
ginia.

JENNINGS, GEORGE W. (1966) . . . . . *Associate Professor of Economics*  
A.B., Emory University; M.A., University of Georgia; Ph.D.,  
University of Virginia.

JOHNS, F. EDWIN (1970) . . . . . *Instructor and Bibliographer in Library*  
B.S., Virginia Commonwealth University; M.L.S., George  
Peabody College.

JOHNSON, CHARLES G. (1965) . . . . . *Instructor of Engineering Technology*  
A.B., Norwich University; M.Ed., Montclair State College  
(New Jersey).

JOHNSON, LUCIE J. (1967) . . . . . *Assistant Professor of Social Work*  
A.B., Wake Forest College; M.S.W., Tulane University.

JOHNSON, MILES F. (1968) . . . . . *Assistant Professor of Biology*  
B.S., Wisconsin State University; M.S., University of Wis-  
consin; Ph.D., University of Minnesota.

JOHNSTON, ROBERT H. (1970) . . . . . *Assistant Professor of Mathematics*  
B.S., M.A., Miami University (Florida).

JOHNSTON, RUSSELL A. (1956) . . . . . *Associate Professor of Business*  
*and Chairman of Department of Business*  
*Administration and Management*  
B.S., M.S., Richmond Professional Institute; Ed.D., University  
of Kentucky.

JONES, CLARENCE G., JR. (1965) . . . . . *Instructor of Physical Education*  
B.S., Virginia Polytechnic Institute; M.Ed., University of  
North Carolina.

JONES, CLINTON E. (1962) . . . . . *Assistant Professor of Engineering Technology*  
B.S., North Carolina State University; M.A., University of  
Michigan.

JONES, JEAN BOYD (1964) . . . . . *Associate Professor of Social Work*  
A.B., Oberlin College; M.S.S.W., Western Reserve University.

JONES, VIROUS W. (1970) . . . . . *Assistant Professor of Social Work*  
 B.A., Virginia State College; M.S.W., Atlanta University  
 School of Social Work.

JORDAN, ANNE S. (1965) . . . . . *Instructor of English*  
 B.S., College of William and Mary; M.Ed., University of  
 Virginia.

JORDAN, DANIEL P., JR. (1969) . . . . . *Assistant Professor of History*  
 B.A., M.A., University of Mississippi; Ph.D., University of  
 Virginia.

JURNEY, W. H. (1968) . . . . . *Assistant Professor of Mathematics*  
 B.S., North Carolina State College; M.A., Duke University.

KACYRA, ANWAR N. (1969) . . . . . *Assistant Professor of Economics*  
 B.S., Tennessee Wesleyan College; M.A., Atlanta University;  
 Ph.D., Catholic University.

KALIF, GEORGE T. (1943) . . . . . *Professor of Social Work*  
 B.A., M.A., M.S.W., Tulane University; Ph.D., Harvard Uni-  
 versity.

KAPP, MARY E. (1940, 1946) . . . . . *Professor of Chemistry*  
*and Chairman of the Department*  
 A.B., University of North Carolina; M.A., Duke University;  
 Ph.D., University of North Carolina.

KAUFMAN, JOHN (1966) . . . *Assistant Professor of Engineering Technology*  
 B.S., U. S. Naval Academy; M.E., Pennsylvania State Univer-  
 sity.

KEENAN, THOMAS L. (1970) . . . . . *Assistant Professor of Social Work*  
 A.B., University of Michigan; M.S.W., University of Michi-  
 gan School of Social Work.

KEESEE, C. GORDON, JR. (1957) . . . . . *Associate Professor of Education*  
*and Chairman of the Department of*  
*Counseling and Guidance*  
 B.S., American University; S.T.B., Westminster Theological  
 Seminary; M.Ed., University of Virginia; Ed.D., University of  
 Virginia.

KERRIGAN, THOMAS L. (1970) . . . . . *Instructor of Crafts*  
 B.S., Wisconsin State University; M.A., Ohio University;  
 M.F.A., Ohio University.

KEVORKIAN, RICHARD E. (1964) . . . . . *Assistant Professor of Painting and*  
*Printmaking and Chairman of the Department*  
 B.F.A., Richmond Professional Institute; Summer Session,  
 Pennsylvania Academy of Fine Arts; M.F.A., California Col-  
 lege of Arts and Crafts.

KIMBROUGH, T. DANIEL, JR. (1967) . . . . . *Assistant Professor of Biology*  
 B.S., M.A., University of Alabama; Ph.D., Auburn University.

- KIRK, THOMAS A., JR. (1966) . . . . . *Assistant Professor of Psychology*  
B.A., St. Vincent College (Pennsylvania); M.A., Ph.D.,  
Catholic University.
- KNIFE, EDWARD E. (1969) . . . . . *Assistant Professor of Sociology*  
*and Anthropology*  
B.A., M.A., University of Arizona; Ph.D., University of Ken-  
tucky.
- KOOIMAN, CORNELIUS A. (1961) . . . . . *Associate Professor and Director*  
*of School of Occupational Therapy*  
O.T.R., B.S., University of Minnesota; M.A., University of  
Southern California.
- KOPLIN, BRUCE M. (1964) . . . . . *Assistant Professor and Director of*  
*Foundation Art Program*  
B.F.A., M.F.A., Richmond Professional Institute.
- KOSS, MICHAEL (1969) . . . . . *Instructor of Dramatic Art and Speech*  
B.S., Long Island University; M.A., University of Connecticut.
- KUHNS, DONALD E. (1970) . . . . . *Instructor of Accounting*  
B.S., Madison College; M.B.A., University of Pittsburgh;  
CPA.
- LAMBERT, JOHN D. (1955) . . . . . *Associate Professor and Assistant Dean*  
*of School of Business*  
B.S., Richmond Professional Institute; M.S., Virginia Poly-  
technic Institute.
- LANDIS, ALAN L. (1968) . . . . . *Assistant Professor and Chairman of*  
*Art Education*  
B.S., Indiana University; M.Ed., D.Ed., Pennsylvania State  
University.
- LANE, LIONEL C. (1966) . . . . . *Professor of Social Work*  
B.A., Long Island University; M.S. in Ed., College of the City  
of New York; M.S., Columbia University; D.S.W., University  
of Pennsylvania School of Social Work.
- LAWES, ROBERT C., JR. (1966) . . . . . *Assistant Professor of Music*  
B.M., Henderson State Teachers College (Arkansas); M.M.,  
Ph.D., North Texas State University.
- LAZARUS, ALAN H. (1967) . . . . . *Instructor of Crafts*  
B.F.A., M.F.A., Rochester Institute of Technology.
- LAZARUS, FREYDA M. (1969) . . . . . *Instructor of Retailing*  
B.S., Rochester Institute of Technology; M.Ed., Virginia  
Commonwealth University.
- LEE, DOROTHY E. (1960) . . . . . *Professor of Business*  
B.S., M.S., Albany State University; Ph.D., New York Uni-  
versity.
- LEFELHOCZ, JOHN F. (1967) . . . . . *Assistant Professor of Chemistry*  
B.S., Ph.D., University of Notre Dame.

- LEWIS, ALLEN NELSON (1970) . . . . . *Instructor of Art Education*  
B.S., Hampton Institute.
- LEWIS, CLAYTON D. (1967) . . . . . *Assistant Professor of Special Education*  
B.S., Eastern Michigan University; M.A., University of Michigan.
- LEZAK, EDWARD H. (1970) . . . . . *Assistant Professor of Mathematics*  
B.S., M.S., Ph.D., Illinois Institute of Technology.
- LINARES, JUAN F. (1968) . . . . . *Assistant Professor of Engineering*  
B.S., University of Havana (Cuba).
- LINDSEY, JAMES E., JR. (1970) . . . . . *Assistant Professor of Philosophy*  
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B.S., University of Richmond; B.D., Th.M., Th.D., Union  
Theological Seminary.
- LIPMAN, PATRICIA A. (1969)\*\*\* . . . . . *Instructor in Anthropology*  
B.A., University of Wisconsin.
- LLEWELLYN, GERALD C. (1969) . . . . . *Assistant Professor of Biology*  
*Education*  
B.S., Frostburg State College; M.S., Ph.D., Purdue University.
- LLOYD, BETTY (1956) . . . . . *Associate Professor of English and*  
*Foreign Languages*  
B.A., M.A., Northwestern University.
- LOCKARD, EARL N. (1969) . . . . . *Associate Professor of English*  
A.B., M.A., University of Illinois; Ph.D., University of Chicago.
- LODGE, RICHARD (1965) . . . . . *Professor of Social Work and Dean,*  
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B.A., Carnegie Institute of Technology; M.S.W., University  
of Pittsburgh School of Social Work; D.S.W., University of  
Pennsylvania School of Social Work.
- LOHR, C. MICHAEL (1966) . . . . . *Assistant Professor of Mathematics*  
B.S., M.Ed., Ed.D., University of Virginia.
- LOHUIS, ARDYTH (1969) . . . . . *Instructor in Sacred Music*  
B.S.M., Illinois Wesleyan University; M.M., Northwestern  
University.
- LOLLEY, THOMAS LANE (1970) . . . . . *Assistant Professor of Education*  
B.A., M.Ed., Northeast Louisiana State College.
- LONG, JOHN L. (1965) . . . . . *Instructor of Interior Design*  
B.A., Wake Forest College; B.D., Th.M., Southeastern Baptist  
Theological Seminary; B.F.A., Richmond Professional  
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- LONGEST, GEORGE C. (1963) . . . . . *Assistant Professor of English*  
B.A., M.A., University of Richmond; Ph.D., University of Georgia.
- LONNES, JEROME LEROY (1970) . . . . . *Assistant Professor of Philosophy and Religious Studies*  
B.A., Carleton College; M.A., Ph.D., Emory University.
- LOOMER, E. COFER (1961) . . . . . *Assistant Professor of Business and Coordinator of Management Center*  
B.S., M.S., Richmond Professional Institute.
- LOONEY, JAMES R. (1964) . . . . . *Assistant Professor and Acting Chairman of Department of Advertising*  
B.S., East Tennessee State University; M.S., Richmond Professional Institute.
- LORE, RICHARD KARL (1970) . . . . . *Associate Professor of Psychology*  
B.A., University of North Carolina; Ph.D., University of Tennessee, Knoxville.
- LUBMAN, MELVIN V. (1968) . . . . . *Instructor of Psychology*  
B.A., University of Richmond; M.A., New York University.
- LUMPKINS, WILLIAM H. (1968) . . . . . *Instructor of Art History*  
B.F.A., M.F.A., University of Southern California.
- LUND, F. EDWARD (1969) . . . . . *Professor of History and Political Science and Chairman of the Department*  
A.B., M.A., Washington and Lee University; Ph.D., University of Wisconsin.
- LYLE, JOHN D. (1967)\*\* . . . . . *Instructor of History*  
A.B., Pfeiffer College; M.A., University of South Carolina.
- LYLE, JOHN DEADRICK (1968) . . . . . *Instructor of Art History*  
B.S., M.A., East Tennessee State University.
- LYLES, ALBERT MARION (1970) . . . . . *Professor of English and Chairman of the Department*  
A.B., Union College; A.M., University of Pennsylvania; Ph.D., Rutgers-The State University.
- LYNCH, JEANNE S. (1964) . . . . . *Assistant Professor of English*  
B.S., Longwood College; M.Ed., University of Virginia.
- MAGILL, G. DAVE (1962)\*\* . . . . . *Assistant Professor of Physical Education*  
B.S., Richmond Professional Institute; M.Ed., University of Virginia.
- MAGISTRO, CHARLES J. (1967) . . . . . *Assistant Professor of Communication Arts and Design*  
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\*\* Educational Leave.

- MANSFIELD, VIRGIL C. (1967).....*Instructor of Business and  
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B.S., M.S., Richmond Professional Institute.
- MAPP, JOHN A. (1964).....*Associate Professor of Education  
and Director of Evening College  
and Dean of Continuing Education*  
B.A., College of William and Mary; M.A., New York Uni-  
versity.
- MARDAN, OMAR (1968)\*\*\*.....*Instructor of Journalism*
- MARKHAM, ROBERT C. (1962).....*Assistant Professor of English*  
B.A., M.A., LL.B., J.D., University of Richmond.
- MARONICK, THOMAS J. (1966).....*Instructor of Business*  
B.A., Seminary of the Northwest (Washington); M.S.B.A.,  
University of Denver.
- MARTIN, BERNARD M. (1961).....*Assistant Professor of Painting  
and Printmaking*  
B.F.A., Richmond Professional Institute; M.A., Hunter Col-  
lege.
- MARTIN, STEPHEN R. (1967).....*Instructor of Advertising*  
B.S.B.A., University of Denver; M.S., Indiana University.
- MASON, NOVEM M. (1968).....*Instructor of Interior Design*  
B.A., North Carolina State University.
- MAY, MARGARET L. (1955).....*Assistant Professor of Biology*  
B.S., American University; M.S., George Washington Uni-  
versity.
- MCCANLESS, ROSAMOND (1938)....*Associate Professor and Assistant to  
Director of Libraries*  
A.B., Converse College; A.B. in Library Science and M.A.,  
University of North Carolina.
- MCCARTHA, ALICE (1969).....*Associate Professor of Education*  
B.Ed., Illinois State University; M.A., University of Illinois;  
Ed.D., University of Florida.
- MCGEARY, KATHRYN M. (1965).....*Assistant Professor of Retailing*  
B.S., North Dakota State University; M.S., New York Uni-  
versity.
- MCGHAN, HARLAN P. (1968).....*Assistant Professor of Philosophy  
and Religious Studies*  
B.A., Michigan State University; M.A., Princeton University.
- McKEE, THOMAS A. (1968).....*Assistant Professor of Business*  
B.S., LL.B., University of Virginia.



- McKINNEY, CHARLES G. (1963) . . . . . *Assistant Professor of Engineering Technology*  
B.S., Massachusetts Institute of Technology.
- McLEOD, ALAN M. (1969) . . . . . *Assistant Professor of Education*  
B.A., Washington and Lee University; M.Ed., Ed.D., University of Virginia.
- McLEOD, CHARLES (1970) . . . . . *Instructor and Admissions Counselor* —  
B.S., Virginia Commonwealth University.
- McNEIL, MICHAEL J. (1969) . . . . . *Instructor in Communication Arts and Design* —  
B.S., University of Wisconsin; M.F.A., Pratt Institute.
- McPHERSON, ELIZABETH H. (1970) . . . . . *Instructor of Education* —  
B.S., Richmond Professional Institute; M.A., Madison College.
- MEDLEY, REGINA C. (1967) . . . . . *Instructor of Crafts* —  
B.S., M.F.A., Bowling Green State University.
- MEGGS, PHILIP (1968) . . . . . *Instructor of Communication Arts and Design* —  
B.F.A., Richmond Professional Institute.
- MEHARG, EDWARD L. (1967) . . . . . *Assistant Professor of Information Systems*  
B.A., University of Nevada; M.A., University of California.
- MERCER, CECIL D. (1969) . . . . . *Assistant Professor of Education*  
B.A., University of Richmond; M.S., Virginia Commonwealth University.
- MIEGLER, ELIZABETH M. (1969) . . . . . *Associate Professor of German*  
Ph.D., University of Gratz.
- MILLER, ARTHUR WAYNE (1970) . . . . . *Assistant Professor of Art Education*  
B.A., William Jewell College; M.A., University of Missouri.
- MILLER, MICHAEL JAMES (1970) . . . . . *Assistant Professor of Sociology*  
B.S., M.A., University of Louisville.
- MILLER, ROBERT P. (1967) . . . . . *Assistant Professor of Business Education and Office Administration*  
B.S., M.S., Madison College; Ed.D., University of Maryland.
- MIRR, EDWARD A. (1960) . . . . . *Assistant Professor of Music*  
B.A., Queens College; M.A., Teachers College, Columbia University.
- MITCHELL, PATRICIA E. (1970) . . . . . *Instructor of English* —  
A.B., M.A., University of Georgia.
- MOESER, JOHN V. (1970) . . . . . *Assistant Professor of Urban Studies*  
B.A., Texas Technical University; M.A., University of Colorado.
- MONCURE, JANE B. (1966) . . . . . *Instructor of Elementary Education* —  
B.S., Richmond Professional Institute; M.A., Teachers College, Columbia University.

- MONTAGUE, ANNE M. (1963) . . . . . *Assistant Professor of Social Work*  
A.B., Meredith College; M.S.S.W., Richmond Professional  
Institute.
- MOORE, DIANE (1970) . . . . . *Instructor and Admissions Counselor*  
B.S., Virginia Commonwealth University.
- MOORE, JAMES TICE (1970) . . . . . *Instructor of History*  
B.A., University of South Carolina; M.A., University of Vir-  
ginia.
- MOOREFIELD, JEAN A. (1966) . . . . . *Instructor of Sociology*  
B.S., East Carolina College; M.A.T., Duke University.
- MORCHOWER, MICHAEL (1969)\*\*\* . . . . . *Assistant Professor of Law*  
*Enforcement*  
B.A., M.S., LL.B., University of Richmond.
- MORONI, PAULINE (1967) . . . . . *Instructor of Education and Counselor*  
B.S., Madison College; M.S., Eastern Illinois University.
- MORRIS, DOUGLAS K. (1970) . . . . . *Instructor of English*  
B.A., David Lipscomb College; M.A., University of Tennessee.
- MORRIS, JOSEPH R. (1969) . . . . . *Assistant Professor of Mathematics*  
B.S., M.S., Virginia Polytechnic Institute; M.A., Ph.D., Uni-  
versity of Alabama.
- MORTON, JERRY D. (1969) . . . . . *Instructor of English*  
B.A., Emory and Henry College; M.A., University of Ten-  
nessee.
- MOSELEY, WILLIAM W. (1970)\*\*\* . . . . . *Instructor of Interior Design*  
B.S., Virginia Polytechnic Institute.
- MOSZER, MAX (1970) . . . . . *Professor of Economics*  
A.B., A.M., Ph.D., University of Pennsylvania.
- MOTLEY, HESTER C. (1968) . . . . . *Assistant Professor of Guidance*  
A.B., M.Ed., College of William and Mary; Ph.D., American  
University.
- MURDOCK, ROBERT W. (1969) . . . . . *Assistant Professor of Mathematics*  
A.B., Syracuse University; M.A., East Tennessee State Uni-  
versity.
- MURPHY, BERNARD (1969) . . . . . *Assistant Professor of Sociology*  
B.A., St. Mary's University (Halifax); M.S., Boston University.
- MURRELLE, ALEXANDER C. (1963) . . . . . *Assistant Professor of Business*  
B.S., University of Texas; LL.B., South Texas College of Law;  
M.S., University of Houston (Texas).
- MURRILL, MALCOLM L. (1948) . . . . . *Associate Professor of Mathematics*  
B.A., Yale University; M.S., University of Richmond.

- MYERS, CAROLYN WADE (1970) . . . . . *Instructor and Serials Librarian*  
B.A., University of Florida; M.L.S., Peabody Graduate Library  
School.
- NAN, GEORGE D. (1963) . . . . . *Associate Professor of Photography and*  
*Chairman of the Department*  
B.F.A., Rochester Institute of Technology; M.S., Illinois In-  
stitute of Technology.
- NEELY, GLENDA S. (1970) . . . . . *Assistant Reference Librarian*  
B.S., University of Georgia; M.L.S., George Peabody College.
- NEHALSINGH, WALTER I. (1968) . . . . . *Assistant Professor of Art History*  
B.S., Tufts University; M.A., Harvard University.
- NELSON, FRANCIS C. (1967) . . . . . *Associate Professor of History*  
B.A., Maurus College, Hungary; M.A., Ph.D., University of  
Budapest; S.P.D., LL.D., Francis Joseph State University.
- NEUMANN, MARGARETTA R. (1952)\*\* . . . . . *Associate Professor of*  
*Social Welfare*  
Ph.B., University of Chicago; M.A., School of Social Service  
Administration, University of Chicago.
- NEWBURG, EDWARD A. (1970) . . . . . *Associate Professor of Mathematics*  
B.S., M.S., Purdue University; Ph.D., University of Illinois.
- NEWDICK, RICHARD L. (1966) . . . . . *Assistant Professor of Dramatic Art*  
*and Speech*  
B.A., University of Maine; M.A., University of North Carolina.
- NICKERSON, CHARLES AUGUSTUS, JR. (1970) . . . . . *Assistant Professor of*  
*Business Administration and Management*  
A.B., Duke University; M.B.A., University of Georgia; CPA.
- NOBLE, CÉCILE E. (1966) . . . . . *Instructor of French*  
B.S., Richmond Professional Institute; Sorbonne, Paris,  
France; M.A., University of Richmond.
- NOBLIN, CHARLES D. (1969) . . . . . *Professor of Psychology*  
B.A., Mississippi College; M.S., Richmond Professional In-  
stitute; Ph.D., Louisiana State University.
- NOE, CHARLES WARREN (1970) . . . . . *Professor of Physical Education*  
B.S., University of Virginia.
- NORTH, HAROLD E. (1965) . . . . . *Assistant Professor and Chairman of*  
*Sculpture Department*  
B.F.A., Rhode Island School of Design; M.F.A., Richmond  
Professional Institute.
- OEHLER, JOHN S. (1970) . . . . . *Assistant Professor of Education*  
B.A., Davidson College; M.A.T., University of North Caro-  
lina.

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\*\* On Educational Leave.

- ORWIG, KENNETH R. (1966) . . . . . *Assistant Professor of Biology*  
B.S., Lebanon Valley College (Pennsylvania); Ph.D., University of Nebraska.
- OSTROW, ELLEN K. (1964) . . . . . *Assistant Professor of Social Work*  
B.S., University of Pittsburg; M.S., Smith College School for Social Work.
- O'TOOLE, DENNIS (1967)\*\* . . . . . *Instructor of Economics*  
B.A., College of William and Mary; M.S., Richmond Professional Institute.
- OTTENBRITE, RAPHAEL M. (1967) . . . . . *Assistant Professor of Chemistry*  
B.S., Ph.D., University of Windsor.
- OVERTON, BETTIE K. (1969) . . . . . *Instructor in Distributive Education*  
A.B., Randolph-Macon Woman's College; M.Ed., University of Virginia.
- OZMON, HOWARD A., JR. (1970) . . . . . *Professor of Education*  
A.B., University of Virginia; M.A., Ed.D., Columbia University.
- PAGELS, JOHN F. (1969) . . . . . *Assistant Professor of Biology*  
B.S., Central Michigan University; M.S., Ph.D., Tulane University.
- PANDA, KAILAS C. (1970) . . . . . *Assistant Professor of Special Education*  
B.A., Utkal University—India; M.A., Patna University—India; Ph.D., Indiana University.
- PANDIELLO, ESTELA A. (1967) . . *Assistant Professor of Foreign Languages*  
Ph.D., in Pedagogy, University of Havana.
- PANICI, SANDRA K. (1970) . . . . . *Instructor of English*  
B.A., Millikin University; M.A., University of Kansas.
- PARIS, OLIVER J. (1968) . . . . . *Assistant Professor of Education and*  
*Director of Admissions*  
A.B., University of North Carolina; M.Ed., University of Florida.
- PARKER, LOIS E. (1969) . . . . . *Instructor of Information Systems*  
B.S., Purdue University; M.A., Michigan State University.
- PARKER, OSBORNE B. (1969) . . . . . *Associate Professor of Education*  
*and Director of Counseling Center*  
B.S., Purdue University; M.S., Indiana University; Ed.D., Michigan State University.
- PARKER, RONALD D. (1969) . . . . . *Assistant Professor of Biology*  
B.S., M.S., University of Illinois.
- PASIERB, LEONARD G. (1963) . . . . . *Assistant Professor of Sociology*  
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\*\* Educational Leave—First Semester.

- PAYNE, F. DANA (1970) . . . . . *Assistant Professor and Coordinator of Academic Advising*  
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- PEARMAN, WILLIAM A. (1970) . . . . . *Associate Professor of Social Work*  
B.A., LaSalle College; M.A., Fordham University; Ph.D., University of Pittsburgh.
- PEARSON, ELLEN D. (1969) . . *Instructor/Director of Student Financial Aids*  
B.S., South Carolina State College.
- PEEPLES, EDWARD H., JR. (1968)\*\* . . . . . *Assistant Professor of Sociology*  
B.S., Richmond Professional Institute; M.A., University of Pennsylvania; Ph.D., University of Kentucky.
- PENDLETON, JAMES D. (1958) . . . . . *Assistant Professor of English*  
B.S., Davidson College; M.A., University of North Carolina.
- PENNINGTON, JUDE COLE (1970) . . . . . *Instructor of Physical Education*  
B.S., Lock Haven State Teachers College; M.Ed., Temple University.
- PEOPLES, NAPOLEON (1970) . . . . . *Counselor and Assistant Professor of Education*  
B.A., Wilburforce University; M.Ed., Ed.S., Kent State University.
- PEPLE, EDWARD C., JR. (1969) . . . . . *Assistant Professor of English*  
B.A., University of Richmond; M.A., Ph.D., University of Virginia.
- PERRY, REGENIA A. (1967)\*\* . . . . . *Associate Professor of Art History*  
B.S., Virginia State College; M.A., Ph.D., Western Reserve University.
- PFEIFFER, CARL (1965) . . . . . *Associate Professor of Music*  
B.S., Julliard School of Music; M.M., University of Miami (Florida).
- PHELAN, WILLIAM R. (1967) . . . . . *Instructor of Communication Arts and Design*  
B.F.A., Massachusetts College of Art; M.F.A., Rochester Institute of Technology.
- PHELPS, PHIL R. (1969) . . . . . *Assistant Professor of English*  
B.A., M.A., University of Tennessee; Ph.D., University of New Mexico.
- PICHERIT, JEAN-LOUIS G. (1969) . . . . . *Assistant Professor of French*  
Diploma, Ecole Supérieure de Commerce et d'Administration des Entreprises (France); M.A., University of Nebraska.
- PLATZ, ANNA E. (1968) . . . . . *Instructor of Foreign Languages*  
B.A., Adelphi University; M.A., Columbia University.

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\*\* Educational Leave.

- POBER, PATRICIA (1969)\*\*\*.....*Instructor of Geography*  
B.A., M.S., University of Idaho.
- POGANY, PETER (1969).....*Assistant Professor of Economics*  
Diploma, Hungarian University of Economics; M.A., University of Pennsylvania; Doctor of Economics, Hungarian University of Economics.
- POLLAK, THERESA (1928)†.....*Professor Emeritus of Painting and Printmaking*  
B.S., University of Richmond; Harvard University (one summer); New York Art Students' League (four years); Hans Hofmann School of Art (one summer).
- POOLE, ROGER CLIFTON (1970).....*Assistant Professor of Business Administration and Management*  
A.B., The Citadel; M.B.A., University of South Carolina.
- PORACH, LEE B. (1970).....*Counselor and Instructor of Education*  
A.B., William and Mary; M.Ed., Ed.D., University of Virginia.
- PORTER, DAVID (1970).....*Instructor of Communication Arts and Design*  
B.F.A., Massachusetts College of Art; M.F.A., Rochester Institute of Technology.
- PRITCHETT, SAMUEL TRAVIS (1970).....*Assistant Professor of Business Administration and Management*  
B.S., M.S., Virginia Polytechnic Institute; D.B.A., Indiana University; C.L.U.
- PROSSER, WILLIAM L. (1970).....*Assistant Professor of Dramatic Art and Speech*  
A.B., Williams College; M.A., Purdue University.
- PUIG, JOSÉ R. (1967).....*Assistant Professor of Sculpture*  
B.A., M.F.A., Southern Illinois University.
- QUARTERMAN, DALE L. (1969).....*Instructor in Communication Arts and Design*  
B.F.A., University of Georgia.
- RAY, WILLIAM SAMUEL (1970).....*Professor of Psychology*  
B.A., Bridgewater College; M.A., Ph.D., University of Maryland.
- RAYCHOWDHURY, PRATIP N. (1969).....*Associate Professor of Mathematics*  
B.S., University of Calcutta; B.A., University College (Calcutta); M.S., Brigham Young University; Ph.D., George Washington University.
- REED, GILBERT F., JR. (1968).....*Instructor of Crafts*  
B.F.A., University of Kansas; M.F.A., University of Michigan.

\*\*\* Part-time.

† Resigned June 1969.

- REED, JAMES R., JR. (1968) . . . . . *Assistant Professor of Biology*  
A.B., Harvard University; M.S., Cornell University; Ph.D.,  
Tulane University.
- REISING, ROBERT W. (1970) . . . . . *Associate Professor of Education*  
B.A., Michigan State University; M.A., University of Con-  
necticut; Ed.D., Duke University.
- RENICK, CHARLES (1953) . . . . . *Professor of Sculpture*  
B.F.A., M.F.A., Richmond Professional Institute.
- REYNOLDS, ELIZABETH R. (1967) . . . . . *Assistant Professor of English*  
B.A., Winthrop College; M.A., Columbia University; Ph.D.,  
University of South Carolina.
- REYNOLDS, JOHN D. (1967) . . . . . *Associate Professor of Biology*  
B.S., M.Ed., Temple University; Ph.D., University of South  
Carolina.
- RHINEHART, RAYMOND P. (1968) . . . . . *Assistant Professor of English*  
B.A., Brown University; M.A., Ph.D., Princeton University.
- RICHARDS, WALTER L., JR. (1951) . . . . . *Associate Professor of Biology*  
B.S., Virginia Military Institute; M.A., University of Virginia.
- RIMLER, GEORGE WARREN (1970) . . . . . *Assistant Professor of Business*  
*Administration and Management*  
B.S.M.E., Polytechnic Institute of Brooklyn; M.B.A., D.B.A.,  
Georgia State College.
- RIVERS, RICHARD (1969) . . . . . *Associate Professor of Music*  
B.S., Julliard School of Music; M.A., George Peabody Col-  
lege.
- ROACH, J. KENNETH (1961) . . *Professor of Business and Director, Graduate*  
*Studies in Business*  
A.B., Duke University; M.A., Columbia University; Ed.D.,  
New York University.
- ROACHE, LILLA EVELYN (1970) . . . . . *Assistant Professor of Sociology and*  
*Anthropology*  
B.A., College of William and Mary; M.A., George Washing-  
ton University.
- ROBERTSON, NEALE M. (1968)\*\* . . . . . *Instructor of Business*  
B.S., M.S., Richmond Professional Institute.
- ROBERTSON, RICHARD H. (1967) . . . . . *Instructor of Information Systems*  
B.S., Richmond Professional Institute; M.S., Virginia Com-  
monwealth University.
- ROBINSON, LAWRENCE (1959) . . . . . *Assistant Professor of Organ*  
A.B., University of South Carolina; M.M., University of  
Michigan.

---

\*\* On Educational Leave.

- ROBINSON, LEAH T. (1965) . . . . . *Instructor of Psychology*  
B.S., M.S., Richmond Professional Institute.
- ROGERS, ALBERT A. (1946) . . . . . *Professor of History and Political Science*  
B.A., University of Richmond; B.S., M.A., Ph.D., University  
of Virginia.
- ROMEO, THOMAS D. (1969) . . . . . *Assistant Professor of Occupational  
Therapy*  
B.S., Southern Connecticut State College; Certificate in  
Physical Therapy, Columbia University; M.Ed., Northeastern  
University.
- ROSS, E. ALLAN (1967) . . . . . *Instructor of Art History*  
B.F.A., B.S., Ohio State University; M.F.A., Bowling Green  
State University.
- ROTHENBERG, ELAINE Z. (1960) . . . . . *Professor of Social Work and  
Associate Dean of the School of Social Work*  
A.B., Queens College; M.S.S., Smith College School for  
Social Work.
- ROUSE, VIRGINIA A. (1965) . . . . . *Instructor of Music*  
B.M. (Music Education), B.M. (Violin), M.M., Florida State  
University.
- ROYSTER, ELIZABETH S. (1964) . . . . . *Instructor of Physical Education*  
B.S., Richmond Professional Institute.
- RUSSELL, DOJELO C. (1965)\*\* . . . . . *Assistant Professor of Social Work*  
B.A., University of Arkansas; M.S.W., Tulane University  
School of Social Work.
- RUSSELL, MILO F. (1957) . . . . . *Assistant Professor of Painting  
and Printmaking*  
B.F.A., Richmond Professional Institute; M.A., University of  
Virginia; Traveling Fellowship, Virginia Museum of Fine Arts.
- RYLAND, ANNE P. (1962)\*\*\* . . . . . *Instructor of Interior Design*  
B.A., Westhampton College; Parsons School of Design.
- SALEH, SOPHIE A. (1969) . . . . . *Instructor of Fashion Design*  
B.A., High Institute for Domestic Economy (Egypt); Diploma,  
St. Martin's School of Arts (London).
- SAVARESE, JAMES M. (1969) . . . . . *Assistant Professor of Economics*  
A.B., LaSalle College.
- SAXTON, DOROTHY P. (1966) . . . . . *Assistant Professor of Occupational  
Therapy*  
Ph.B., Northwestern University; Certificate in Occupational  
Therapy, Milwaukee Downer College; M.A., Western Michi-  
gan University.

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\*\*\* Part-time.



- SCALIN, CHARLES B. (1968) . . . . . *Instructor of Communication Arts and Design*  
B.F.A., Art Institute of Chicago; M.F.A., Pratt Institute.
- SCHANTZ, ALAN PAUL (1970) . . . . . *Instructor of Art Education*  
B.A., Muhlenberg College; M.Ed., Temple University.
- SCHATZKY, SIDNEY A. (1968) . . . . . *Instructor of Fashion Art*  
B.F.A., Rochester Institute; M.F.A., Pratt Institute.
- SCHEDLER, DAVID A. (1969) . . . . . *Assistant Professor of Mathematics*  
B.S., M.S., Oklahoma State University.
- SCHILTZ, JACK H. (1969) . . . . . *Assistant Professor of Physical Education*  
B.S., M.S., Southern Illinois University; Ed.D., Columbia University.
- SCHREIBER, MARY (1970) . . . . . *Associate Professor of Social Work*  
B.A., University of Illinois; M.S.W., Washington University (Missouri).
- SCHRIEBERG, CHARLOTTE S. (1965) . . *Assistant Professor of Social Work*  
B.S., Westhampton College; M.S.S.W., Richmond Professional Institute.
- SCHUBERT, MARGARET (1968)\*\*\* . . . . . *Professor of Social Work*  
A.B., University of California; A.M., Ph.D., University of Chicago.
- SCHUETZ, ARNOLD (1970) . . . . . *Instructor of History and Political Science*  
M.A., Tulane University.
- SCHWABAUER, ROBERT J. (1970) . . . . *Assistant Professor of Mathematics*  
B.S., M.S., Ph.D., University of Nebraska.
- SCHWARZ, JOSEPH (1968) . . . . . *Professor of Art and Director, Graduate Studies in Art*  
B.F.A., Ohio Wesleyan University; M.F.A., University of Illinois; Ph.D., Ohio State University.
- SCOTCH, C. BERNARD (1968) . . . . . *Associate Professor of Social Work*  
B.A., Boston University; M.S.W., University of Pittsburgh; Ph.D., Brandeis University.
- SCOTT, LINDA PAIGE (1970) . . . . . *Instructor of Information Systems*  
B.S., M.S., Virginia Commonwealth University.
- SEE, RUTH D. (1967) . . . . . *Assistant Professor of History*  
B.A., Mary Baldwin College; M.R.E., New York Theological Seminary; Ph.D., New York University.
- SEGAL, FLORENCE (1968) . . . . . *Assistant Professor of Social Work*  
B.A., Queens College; M.A., University of Chicago.
- SEIDENBERG, ARTHUR J. (1968) . . . . . *Assistant Professor of Biology*  
B.S., Brooklyn College; Ph.D., University of Illinois.

- SELLMAN, RICHARD (1968) . . . . . *Associate Professor of Accounting*  
B.B.A., City College of New York; M.B.A., Columbia University; M.B.A., Boston University; Ph.D., American University; CPA.
- SEWARD, LYNNE K. (1970) . . . . . *Instructor of Recreation*
- SEXTON, VINCENT L., III (1964) . . . . . *Instructor of History*  
B.A., Hampden-Sydney College; M.A., George Peabody College.
- SHARPLEY, JOHN M. (1967) . . . . . *Associate Professor of Biology*  
B.A., Hampden-Sydney College; M.S., University of Richmond.
- SHARSHAR, ABDELALEM M. (1970) . . . . . *Assistant Professor of Economics*  
B.Com., University of Cairo (Egypt); M.A., Williams College; M.Ph., Ph.D., George Washington University.
- SHEFFIELD, ROBERT N. (1968)\*\* . . . . . *Instructor of Business*  
B.S., M.S., Richmond Professional Institute.
- SHERRARD, S. McCLUER (1970) . . . . . *Instructor and Cataloger for Library*  
B.A., Roanoke College; M.A.L.S., George Peabody College.
- SHERRON, RONALD H. (1970) . . . . . *Assistant Professor of Education*  
B.S., North Carolina State University; M.Ed., Ph.D., University of North Carolina.
- SHILLADY, DONALD DOUGLAS (1970) . . . . . *Assistant Professor of Chemistry*  
B.S., Drexel University; M.A., Princeton University; Ph.D., University of Virginia.
- SIEFKE, THOMAS C. (1970) . . . . . *Assistant Professor of Crafts*  
B.F.A., M.F.A., Bowling Green State University.
- SIGLER, CHARLES O. II (1968) . . . . . *Instructor of Fashion Design*  
B.F.A., Richmond Professional Institute.
- SILVER, THOMAS C. (1968) . . . . . *Instructor of Sculpture*  
B.A., California State College; M.F.A., University of Kansas.
- SIMMONS, GEORGE M., JR. (1968) . . . . . *Assistant Professor of Biology*  
B.S., Appalachian State University; Ph.D., Virginia Polytechnic Institute.
- SIMPSON, DOROTHY (1969) . . . . . *Assistant Professor of Art Education*  
B.A., Alabama College; M.A., University of Alabama; D.Ed., Pennsylvania State University.
- SINGH, B. KRISHNA (1969) . . . . . *Assistant Professor of Sociology*  
B.S., University of Gorakpur (India); M.S., University of Bhagalpur (India); M.S., University of Guelph (Canada).
- SKINNER, MARY L. (1968) . . . . . *Assistant Professor of English*  
A.B., Mount Holyoke College; D.P., University of St. Andrews (Scotland); M.A., Ph.D., University of Tennessee.

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\*\* On Educational leave.

- SLATER, MERLE V. (1966) . . . . . *Assistant Professor of Business and Registrar*  
B.S.B.A., Washington University (St. Louis); M.A.Ed., University of Florida.
- SLOOPE, BILLY W. (1968) . . . . . *Associate Professor of Physics and Chairman of the Department*  
B.S., University of Richmond; M.S., Ph.D., University of Virginia.
- SMITH, BRUCE (1968) \*\*\* . . . *Instructor of Communication Arts and Design*  
B.F.A., Virginia Commonwealth University.
- SMITH, DONALD L. (1968) . . . . . *Instructor of English and Assistant Director of Admissions* —  
B.A., Richmond Professional Institute; M.Ed., University of Richmond.
- SMITH, H. STUART, JR. (1967) . . . . . *Assistant Professor of Education and Psychology*  
B.A., University of Richmond; M.S., Virginia Polytechnic Institute; Ph.D., Univ. of Virginia.
- SMITH, L. WINSTON (1963) . . . . . *Instructor of History* —  
B.A., M.A., University of Richmond.
- SMITH, RENÉ (1964) . . . . . *Instructor of Physics* —  
B.S., Loyola University; M.S., Fordham University.
- SMITH, SANFORD O. (1966) . . . . . *Assistant Professor of Engineering Technology*  
A.B., Mercer University; B.D., Southern Baptist Theological Seminary; M.A., University of Louisville.
- SNELLINGS, ELEANOR C. (1968) . . . . . *Associate Professor of Economics*  
A.B., M.A., University of North Carolina; Ph.D., Duke University.
- SOLOMON, JACK D. (1967) . . . . . *Assistant Professor of Painting and Printmaking*  
B.A., San Diego State College; M.A., San Francisco State College.
- SPARKS, HOWARD L. (1966) . . . . . *Professor of Education and Assistant Dean of the School of Education*  
A.B., College of William and Mary (Norfolk); M.A., Ed.D., Teachers College, Columbia University.
- SPINNELLI, MICHAEL A. (1969) . . . . . *Assistant Professor of Business*  
B.A., West Virginia University.
- STERNAL, BRANCH K. (1970) . . . . . *Assistant Professor of Business Administration and Management*  
B.A., University of Minnesota; M.B.A., Inter-American University—Puerto Rico.

- STEVENS, JOSEPH LEOPOLD (1970) . . . . . *Associate Professor of Political Science and Urban Studies*  
J.U.D., University of Vienna (Austria); M.C.L., George Washington University.
- STIERS, WALTER F. (1966)\*\* . . . . . *Assistant Professor of Education and Assistant Registrar*  
B.S., Central Normal College (Indiana); M.S.Ed., Butler University.
- STUMP, BILLY LEE (1966) . . . . . *Associate Professor of Chemistry*  
B.S., Carson-Newman College; Ph.D., University of Tennessee.
- SUCEC, DAVID A. (1969) . . . . . *Assistant Professor of Painting*  
B.A., San Diego State College; M.A., San Francisco State College.
- SWYERS, WILLIAM R. (1969) . . . . . *Associate Professor of Education*  
B.M.Ed., Murray State University; M.S., University of Notre Dame; Ed.D., University of Georgia.
- SYKES, MOSETTA P. (1966)\*\* . . . . . *Instructor of Business Education*  
B.S., M.S., Richmond Professional Institute.
- TAJUDDIN, MOHAMMAD (1966, 1970) . . . . . *Associate Professor of English*  
B.A., M.A., Osmania University, Hyberadad, India; M.A., University of Chicago; Ph.D., Indiana University.
- TALBERT, ROBERT MARTIN (1969) . . . . . *Assistant Professor of History, Philosophy and Religious Studies*  
B.A., Wake Forest University; B.D., S.E., Baptist Theological Seminary (N.C.); Ph.D., Hebrew Union College.
- TAPLIN, JACKIE F. (1967) . . . . . *Counselor and Instructor of Education*  
B.S., Longwood College; M.Ed., Tulane University.
- TARTER, MARTIN A., JR. (1969) . . . . . *Assistant Professor of Education*  
B.S., Virginia Polytechnic Institute; M.Ed., Ed.D., University of Virginia.
- TAYLOR, JOHN S. (1965) . . . . . *Instructor of Political Science*  
A.B., M.A., University of North Carolina.
- TEETER, SARA E. (1965) . . . . . *Instructor of History*  
A.B., University of Georgia; M.A., University of Richmond.
- TENNANT, DONALD B. (1952) . . . . . *Professor of Music*  
B.S., Ohio State University; M.M., University of Michigan; Ph.D., University of Iowa.
- THAYER, EDWIN C. (1962) . . . . . *Assistant Professor of Music (Horn)*  
B.M., M.M., University of Illinois.
- THEDFORD, WILLIAM A. (1970) . . . . . *Assistant Professor of Mathematics*  
B.S., M.S., Oklahoma State University; Ph.D., New Mexico State University.

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\*\*On Educational leave.

- THOMAS, CHARLES W. (1969) . . . . . *Assistant Professor of Sociology*  
B.S., McMurry College; M.A., University of Kentucky.
- THOMAS, EDWIN R. (1950, 1955) . . . . . *Professor of Psychology and*  
*Chairman of the Department*  
B.A., University of Richmond; M.S., North Carolina State  
College; Ph.D., Syracuse University.
- THOMAS, MARY ELLEN (1969) . . . . . *Assistant Professor and Reference*  
*Librarian*  
B.A., Westhampton College; M.S.L.S., University of North  
Carolina.
- THOMPSON, CLYDE M. (1969) . . . . . *Instructor of Business*  
B.S., Virginia Commonwealth University; M.C., University of  
Richmond.
- THOMPSON, NANCY K. (1969) . . . . . *Instructor in Crafts*  
B.S., Ball State Teachers College; M.F.A., Indiana Univer-  
sity.
- THORNTON, JACK E. (1969) . . . . . *Associate Professor of Business*  
B.S., M.S., Ph.D., University of North Carolina.
- TINSLEY, MARGARET G. (1968) . . . . . *Instructor of English*  
B.A., Westhampton College; M.A., University of Richmond.
- TIPTON, ROBERT M. (1966) . . . . . *Assistant Professor of Psychology*  
B.S., M.S., Richmond Professional Institute; Ph.D., University  
of Missouri.
- TODD, JAMES M. (1968) . . . . . *Instructor of Accounting*  
B.S., M.A., Appalachian State University.
- TROPP, EMANUEL (1966) . . . . . *Professor of Social Work*  
B.S.S., College of the City of New York; M.S.S.W., Columbia  
University School of Social Work.
- TUCKER, WOODIE L. (1957) . . . . . *Professor of Business and*  
*Chairman Department of Business Education*  
*and Office Administration*  
B.S., University of Virginia; M.Ed., Ph.D., University of Pitts-  
burgh.
- TUDOR, MARY J. (1967) . . . . . *Instructor of History*  
B.S., Richmond Professional Institute; M.A., University of  
Maryland.
- TURPIN, WILLIAM H. (1969) . . . . . *Assistant Professor of Journalism*  
A.B., University of Georgia; M.A., University of Florida.
- TYLER, GEORGE R. (1969) . . . . . *Assistant Professor of Economics*  
B.S., American University.
- ULLMAN, ROBERT M. G. (1969) \*\*\* . . . . . *Instructor in Interior Design*  
B.S., University of Virginia.

- UMBERGER, PAUL M. (1959) . . . . . *Assistant Professor of Business*  
B.S., M.S., Virginia Polytechnic Institute.
- VACCA, RICHARD S. (1967) . . . . . *Assistant Professor of Education and*  
*Assistant Dean, School of Education*  
A.B., Lafayette College (Pennsylvania); M.S., State University of New York at Oneonta; Ed.D., Duke University.
- VANCE, ROBERT L. (1970) . . . . . *Assistant Professor of Chemistry*  
B.S., Virginia Polytechnic Institute; Ph.D., University of Virginia.
- VAN WINKLE, LESTER (1969) . . . . . *Instructor in Sculpture*  
B.S., East Texas State University; M.A., University of Kentucky.
- VLAHCEVIC, SONIA K. (1967) . . . . . *Instructor of Music*  
B.A., New England Conservatory; M.M., Western Reserve University.
- VOGEL, WILLIAM A. (1970) . . . . . *Instructor of Special Education*  
B.A., Susquehanna University; M.A., Newark State College.
- WALKER, RUBY CLAYTON (1970) . . . . . *Assistant Professor of Social Work*  
B.S., Virginia Union University; M.S.S.W., Virginia Commonwealth University.
- WALLACE, JOHNNY H. G. (1968) . . . . . *Assistant Professor of Rehabilitation*  
*Counseling*  
A.B., Lenoir-Rhyne College; M.S., Richmond Professional Institute.
- WALLER, DENNIS G. (1970) . . . . . *Instructor of History and Political Science*  
B.A., University of Virginia; M.A., Duke University.
- WALLS, ELIZABETH I. (1969) . . . . . *Instructor of Business*  
B.S., Oklahoma State University; M.S., Virginia Commonwealth University; CPS.
- WARMENHOVEN, HENRI J. (1968) . . . . . *Assistant Professor of History and*  
*Political Science*  
LL.B., LL.M., University of Leyden; M.A., University of Melbourne.
- WARNER, JOSEPH D. (1964) . . . . . *Associate Professor of Psychology*  
A.B., Northeastern University; M.A., Ph.D., University of California at Los Angeles.
- WASHER, LOIS McG. (1940) . . . . . *Professor of Recreation*  
*and Chairman of Department of Social Welfare*  
B.S., Carnegie Institute of Technology; M.S.S.W., Richmond Professional Institute.
- WATSON, RUTH J. (1967) . . . . . *Assistant Professor of Social Welfare*  
B.A., Baptist Missionary Training School; M.A., University of Chicago Divinity School.
- WEAVER, CARL G. K. (1968) . . . . . *Instructor of Business*  
B.S., M.S., Richmond Professional Institute.

- WEBER, DAVID (1970) . . . . . *Assistant Professor of Dramatic Art and Speech*  
B.F.A., Denison University; M.A., Kent State University.
- WELCH, RIZPAH L. (1967) . . . . . *Associate Professor of Special Education*  
B.S., Elizabeth City (N. C.) Teachers College; M.S., Ed.D.,  
Indiana University.
- WELZEL, ALVIN K. (1968) . . . . . *Associate Professor of Retailing*  
*and Acting Chairman of the Department*  
B.S., Rutgers University; M.S., New York University.
- WESTERBERG, STURE V. (1969) . . . . . *Assistant Professor of Law*  
*Enforcement*  
B.E., St. Cloud Teachers College; M.Ed., University of Mary-  
land.
- WESTERMANN, HARLAND W. (1969) . . . . . *Professor of Urban Studies*  
B.A., M.A., George Washington University; Ph.D., Clark  
University.
- WETTON, PHILIP S. (1969) . . . . . *Instructor in Printmaking* ➤  
Diploma, Coventry College of Art.
- WHITE, SARAH A. (1968) . . . . . *Instructor of Sociology* —  
B.S., M.S., Richmond Professional Institute.
- WHITESSELL, J. EDWIN (1966) . . . . . *Professor of English and*  
*Dean of the School of Arts and Sciences*  
A.B., Randolph-Macon College; M.A., Ph.D., Harvard Uni-  
versity.
- WILLETT, HENRY I. (1969)\*\*\* . . . . . *Professor of Education*  
B.A., LL.D. (hon.) College of William and Mary; M.A., Co-  
lumbia University; Litt.D., (hon.) University of Richmond.
- WILLIAMS, JACKIE G. (1957) . . . . . *Assistant Professor of Accounting*  
B.S., Madison College; M.S., Richmond Professional Institute.
- WILLIAMS, JANE D. (1970) . . . . . *Instructor of Business Education and* —  
*Office Administration*  
B.S., Richmond Professional Institute; M.S., Virginia Com-  
monwealth University.
- WILLIAMS, MILLCENT J. (1966) . . . . . *Instructor of Business* —  
B.S., M.B.A., Florida State University.
- WILLIAMSON, THOMAS DEE (1970) . . . . . *Instructor of Social Welfare* ➤  
B.S., Western Illinois University; M.A., School of Social  
Service Administration, University of Chicago.
- WILLIS, H. DAVID (1956) . . . . . *Associate Professor of Accounting*  
B.S., West Virginia University; M.Ed., Virginia Polytechnic  
Institute.
- WILSON, DAVID G. (1970) . . . . . *Assistant Professor of Mathematics*  
B.S., University of Oklahoma; M.S., Iowa State University;  
Ph.D., University of Maryland.

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- WILSON, R. SHADE (1963) . . . . . *Instructor of English*  
B.A., M.A., University of Richmond.
- WINDMUELLER, OTTI Y. (1953) . . . . . *Associate Professor of Fashion Design*  
*and Chairman of Department*  
Journeyman Costume Designer, trained in Germany; B.F.A.,  
Virginia Commonwealth University.
- WINEBRENNER, DANIEL K. (1967) . . . . . *Instructor of Crafts*  
B.F.A., M.F.A., Rochester Institute of Technology.
- WINGFIELD, MERVYN W. (1970) . . . . . *Professor of Accounting and Chairman*  
*of the Department*  
A.B., College of William and Mary; M.S., University of  
Richmond; Ph.D., University of Illinois; CPA.
- WOLFE, ELEANOR V. (1957) . . . . . *Associate Professor of Occupational Therapy*  
B.S., Woman's College, University of North Carolina; M.A.,  
Texas Woman's University; Certificate in Occupational  
Therapy, Richmond Professional Institute.
- WOOD, D. ROBLEY, JR. (1968) . . . . . *Instructor of Business*  
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MAIN STREET

MONROE PARK



LAUREL STREET

CATHEDRAL PLACE

FLOYD AVENUE

PARK AVENUE

FRANKLIN STREET

GRACE STREET

49

50

3

1128 FLOYD

GROVE AVENUE

LINDEN STREET

HARRISON STREET

SHAFFER STREET

### Key to the Academic Center

1. Mosque
2. Art Classrooms—913 Floyd Avenue
3. To Classrooms—Floyd Avenue and Morris Street
4. James Branch Cabell Library
5. Science Building—816 Park Avenue
6. Physical Plant—824 Park Avenue
7. Chalkley House—828 Park Avenue
8. Hibbs Building and Cafeteria—900 Park Avenue
9. Office Building—912 Park Avenue
10. Art Classrooms—914 Park Avenue
11. & 12. School of Education—918-920 Park Avenue
13. Art Classrooms—924 Park Avenue
14. History & Political Science—926 Park Avenue
15. Dormitory—928 Park Avenue
16. Faculty Office—930 Park Avenue
17. Temple—Gaslight Theatre and Cafeteria
18. Communication Arts and Theatre Building
19. Anderson Gallery-School of Art
20. Pollack Art Building
21. Margaret L. Johnson Hall—801 West Franklin
22. Gymnasium Building and Classrooms—817-819 West Franklin
23. Ritter-Hickok—821 West Franklin
24. Arts and Crafts
25. Founders' Hall—827 West Franklin
26. Administration Building, Academic Center—901 West Franklin
27. Anderson House—913 West Franklin
28. Offices, School of Art—915 West Franklin
29. & 30. School of Music—917-919 West Franklin
31. & 32. Scherer Hall—923 West Franklin
33. Raleigh Building
34. Rhoads Hall—710-716 West Franklin
35. School of Business and Faculty Offices—800 West Franklin
36. Dormitory—806 West Franklin
37. Dormitory—808 West Franklin
38. Offices—810 West Franklin
39. Classroom Building—812 West Franklin
40. School of Business—820 West Franklin
41. Offices—826 West Franklin
42. VCU Administrative Offices—910 West Franklin
43. Student Center—916 West Franklin
44. VCU Police Department—918 West Franklin
45. Admissions Office—920 West Franklin
46. Meredith House—1014 West Franklin
47. Sculpture Studio
48. Lafayette Hall—312 North Shafer
49. Physical Plant Warehouse—6 S. Linden
50. School of Business Site



**VIRGINIA COMMONWEALTH UNIVERSITY/BULLETIN**  
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SECOND CLASS POSTAGE  
PAID  
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