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2019

# Research Methods in Sport Syllabus (Fall 2019)

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## SPTL 603 Research Methods in Sport Fall 2019

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#### **Resource Information:**

#### **Books**

Holmes, A., Illowsky, B., & Dean, S. (2018). *Introductory Business Statistics*. Houston, TX: OpenStax.

→ See PDF of Text on Blackboard

American Psychological Association. (2010). *Publication Manual of the American Psychological Association* (6<sup>th</sup> ed.). Washington, DC: American Psychological Association.

#### **Podcasts**

Counterpoints
FREAKONOMICS
Sports Geek
Measurables

#### Software

Microsoft Excel LinkedIn Learning

## **Course Description:**

Research Methods is designed to help graduate students acquire the fundamental skills to create their own empirical research to guide effective *decision-making*. It is also designed to help students develop the skills of reading and evaluating research published by others. This course offers an introduction to market research, analytics, and qualitative design. It will help students determine and defend problems in sports from a statistical perspective, bringing more credibility to their stances.

# **Course Objectives:**

By the end of this course, a successful student will be able to:

- 1. translate management or coaching problems into research problems,
- 2. develop the skills necessary to formulate a research design for solving these problems,



- 3. develop the ability to identify, research, statistically analyze and produce written support for an issue,
- 4. understand the limits of statistical analysis,
- 5. effectively present numerical and statistical information to others both visually and orally.
- 6. separate opinion from fact in one's own and others' thinking and be able to express these differently, and
- 7. demonstrate an increased potential for contributing to the improvement of sports as a participating professional.

## **Course Expectations:**

Attendance: Students are expected to attend class and arrive on time. You are encouraged to notify the instructor of absences ahead of time when possible. Because of the discussion nature of this course, it is vital that you are present in order to fully gain an understanding of the material.

*Writing:* As this is a Master's level course, it is expected that you write all papers and assignments with correct grammar, punctuation, and APA formatting, including citations and references when necessary. Lower grades will result on work with numerous grammatical errors. The on-campus Writing Center is available for those students seeking additional help in this area.

Assignments: Students should complete all assignments on time. All assignments are due at the beginning of the class on the stated due date (e.g., 9:00AM). If a deadline is missed, a reduction of 25% of the total score for the given assignment will occur for every day (weekends inclusive) the assignment is late (starting immediately after the original deadline, e.g. 9:00 a.m.). All assignments must be turned in electronically to via email to <a href="mailto:gpgreenhalgh@vcu.edu">gpgreenhalgh@vcu.edu</a>

In addition to accurate content and thoughtful analysis, proper spelling, grammar, and the overall format/appearance of your work will be considered in the evaluation of all class assignments. All students are expected to use correct APA (6<sup>th</sup> ed.) formatting, unless otherwise stated in the assignment's instructions.

### **Course Assessments & Grading:**

Mini-Survey & Data Visualization*	10%	90% - 100%	A
Research Project*	25%	80% - 89%	В
Research Project Presentation*	10%	70% - 79%	C
Midterm Exam	25%	60% - 69%	D
Final Exam	15%	59% or below	F
Excel Statistics Essential Training: 1	15%		

<sup>\*</sup> A separate assignment handout is available on Blackboard.

## **Assignments & Projects:**

Mini-Survey & Data Visualization (10%): Students will collect primary data individually and then present the findings of their dataset in a visually appealing way to the class. Each student will have a maximum of 5 minutes to present their findings and indicate why this is important. See the assignment sheet posted on Blackboard for more details.

Research Project (25%): For your research project you will, in groups of 4-5, collect and analyze data on the topic of your choice. You will determine a methodology for collecting and analyzing your data, and will then carry out the research. Microsoft Excel software will be available to you in the Center for Sport Leadership workroom to complete your analysis if you do not have this program on your personal computer. After completing your research, you will write a final report, which will include an introduction, background for the research, definition of terms, methodology (subjects, procedures), data analysis, results, and discussion/conclusion. In the results section, you will be expected to present your data and findings both visually and verbally. Your research project is due on **November 21, 2019 at 9am.** 

Project Presentations (10%): It is extremely important to not only learn the content of the course, but to be able to "talk the talk." Therefore, each group will be required to give a 15-20 minute presentation at the conclusion of the semester. Your presentation will be on your research project and its results. You are expected to be able to communicate the content of your paper in a concise presentation in front of the class. You are only expected to hit the major points of your research project, including what your topic was, what you did and how you collected your research, what the major and/or significant findings were, and what conclusions you drew based on these. Please be creative in the presentations and remember that many of us may have little to no knowledge about the topic on which you are speaking, so be sure to account for this in your presentation. Presentation dates will be chosen at the beginning of the semester. Presentations will be held on **December 5 & 12** during class time.

*Midterm Exam* (25%): Your midterm exam will take place on **October 3** from 9:00-11:40 a.m. You will have one class period (2 hours, 40 minutes) to complete your exam, which will cover all course material from the beginning of the semester until September 26, including assigned class materials. You will receive more details as the semester proceeds.

Final Exam (15%): Your final exam will be a take home exam, due no later than 9:00 a.m. on **December 12**. The exam will cover all course material addressed after the midterm exam. It will mainly focus on data analysis, but will also include other required course materials. While this is a take home, it is to be done by you **alone**, with no help from classmates or others. You will receive more details on your final exam as the semester proceeds.

<u>Excel Statistics Essential Training: 1 (2016)(15%)</u>: Each student must complete the Excel Statistic Essential Training: 1 (2016) by Joseph Schmuller via LinkedIn Learning. You have access to this resource free through VCU. This course must be completed and the certificate of completion send to <a href="mailto:gpgreenhalgh@vcu.edu">gpgreenhalgh@vcu.edu</a> no later than October 24 at 9am.

# **Policies**

Students should visit http://go.vcu.edu/syllabus and review all syllabus statement information. The full university syllabus statement includes information on safety, registration, the VCU Honor Code, student conduct, withdrawal and more.

# **Tentative Course Outline:**

<u> </u>	e Course Outline:	
<b>Date</b> 8/22	Content Introduction to Research	Podcast / Assignment Due
8/29	Literature Reviews and Reading Research	Counterpoints: So, Do Analytics Actually Work?
9/5	Types of Studies and Variables	FREAKONOMICS Radio: Think Like a Winner [Ep. 363]
9/12	Sampling and IRB	Sports Geek: <u>Adam Grow on incorporating</u> <u>data into sports strategy</u> Mini-Survey/Data Visualization(1)
9/16	Experimental Design Reliability and Validity	Sports Geek: Vincent Ircandia on Reliability and Validity understanding your fans, data & putting SOLD OUT sign out Mini-Survey/Data Visualization (2)
9/26	Qualitative Research	Counterpoints: How Much Do Coaches Actually Matter? Mini-Survey/Data Visualization (3)
10/3	Midterm Exam	
10/10	Guest Speaker Wes Chappell, Analyst – SSRS/Luker on Trends	
10/17	Statistics 101 Descriptive Statistics	Measurables: <u>Plus-Minus and PER</u>
10/24	Chi-square	Sports Geek: How data powers Orlando  Magic Success – Jay Riola  Certificate of Completion due for Excel  Statistics Essential Training: 1 (2016) by  Joseph Schmuller
10/31	Regression	Counterpoints: Predicting the College Football Playoff Final Project Feedback deadline

11/7	Guest Speaker Justin Padjen, Business Development at Trackman	
11/14	t-test and Analysis of Variance (ANOVA)	
11/21	Tableau and Data Visualization	<b>Final Projects Due</b>
11/28	TURKEY DAY – NO CLASS	
12/5	Final Project Presentations	
12/12	Final Project Presentations	Final Exam Due