George Mason University College of Education and Human Development Sport and Recreation Studies

SRST 623, 001– Research Design and Statistical Reasoning 3 Credits, Fall 2019 W 4:30pm -7:10 pm Robinson Hall, B122 – Fairfax Campus

Faculty

Name: Dr. Chris Green

Office Hours: M/T/Th 1:30-2:30 or by appointment
Office Location: Krug Hall Room 213G, Fairfax Campus

Office Phone: (703) 993-5371 Email Address: bgreen21@gmu.edu

Prerequisites/Corequisites

Graduate standing

University Catalog Course Description

Introduces basic principles of scientific and scholarly inquiry in Sport and Recreation Studies. Explores the logic and practice of methods and techniques employed in research related to sport and recreation.

Course Overview

This course prepares students with the knowledge and skills needed to conduct basic or applied research within academia and in their current or future professions.

Course Delivery Method

This course will be delivered using a face-to-face format.

Learner Outcomes or Objectives

This course is designed to enable students to do the following:

- 1. Demonstrate appropriate use of research terminology and application of basic concepts and principles associated with scientific research;
- 2. Critically evaluate published research in scientific journals and the popular press;
- 3. Demonstrate the use of research methodologies and designs employed in SRST research;
- 4. Apply critical thinking and research findings in SRST practice;
- 5. Use descriptive and inferential statistics in analyzing research data; and
- 6. Prepare a sound and feasible research proposal.

Professional Standards

Courses offered in the Sport and Recreation Studies (SRST) graduate program are guided by the principles of COSMA. COSMA (2016, p. 1) "bases its accrediting process on principles, rather than standards." The eight recommended principles are:

- outcomes assessment;
- strategic planning;
- curriculum;
- faculty;
- scholarly and professional activities;
- resources:
- internal and external relationships; and
- educational innovation.

For more information, please see:

Commission of Sport Management Accreditation. (2016, May). Accreditation principles manual & guidelines for self-study preparation. Retrieved November 30, 2016 from http://www.cosmaweb.org/accreditation-manuals.html

Required Texts

O'Leary, Z., & Hunt, J. S. (2016). *Workplace research*. London: SAGE. ISBN 978-1-4739-1321-9 (pbk). Also available online from: vitalsource.com

Pallant, J. (2016). SPSS Survival Manual: A step by step guide to data analysis using IBM SPSS (6th ed.). Columbus, OH: McGraw-Hill Education. Also available online.

Additional readings will be required throughout the semester and will be available on Blackboard (mymason.gmu.edu.). Make your own copies of the supplemental readings required for this course.

Recommended Resource

American Psychological Association. (2009). *Publication Manual of the American Psychological Association* (6th ed.). Washington, DC: American Psychological Association.

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, Tk20, hard copy).

Assignments will be due at the beginning of class on the specified date due. No late work is accepted in this course.

You have three days after a graded assignment or exam has been returned to contact the professor to contest the grade. After three days, only the content of the graded assignment or exam can be discussed. If you have an <u>unexcused</u> absence on the day that an assignment or exam is returned, contact the professor ASAP to receive the assignment, as the three day contact period starts when

the assignment was returned in class. For $\underline{\text{excused}}$ absences, the three-day contact period starts when the student receives the assignment.

Assignments and/or Examinations

Assignment	Point Value
Proposal Part #1 – Setting the stage: Students are required to present background information of the problem they will address, justify its importance, and derive appropriate and effective research questions. Guidelines Provided.	40
Proposal Part # 2 – Mapping existing knowledge: Students are required to map the information needed/obtained via the literature, justify a potential framework to guide the research, and identify/annotate a source for each element of the map. Guidelines Provided.	60
Proposal Part #3 – Aims and Objectives: Students are required to discuss the purpose and rationale for their study. Guidelines Provided.	30
Proposal Part # 4 – Research Design: Students are required to describe and justify their research design, study population and sample. Guidelines Provided.	60
Proposal Part # 5 – Data Collection and Analysis Plan: Students are required to describe their research setting, data collection procedure, and specify how they plan to analyze their data. You must also include your research instrument. Guidelines Provided.	40
Proposal Part # 6 – Preliminary Results: Students are required to collect data from a small sample and conduct an initial analysis of that data. You will report the results of your preliminary analysis, including any visual presentation of data. Guidelines Provided.	40
Proposal Part #7 – Preliminary Recommendations: Students are required to draw conclusions from the preliminary results, and to make recommendations based on those conclusions. Limitations should also be discussed. Guidelines Provided.	40
Homework and Class Activities/Assignments: Students will complete small assignments and activities throughout the semester that will assist in their understanding of the research process. Often these activities will feed directly into the graded assignments. These activities will be graded on the basis of completion.	50
CITI Training and Certification: Students are required to complete Collaborative Institutional Training Initiative (CITI) Human Subjects Research training – Instructions Provided.	30
Plagiarism Learning Module and Assignment: Students are required to complete the plagiarism learning module on Blackboard– Instructions Provided.	25
APA Learning Module and Assignment: Students are required to complete the APA learning module on Blackboard– Instructions Provided.	25
SPSS Learning Module and Assignment: Students are required to complete two stats assignments that will introduce them to SPSS, help them prepare a data	60

file, conduct preliminary descriptive analyses, and conduct correlation, t-test and	
one-way ANOVA statistical analyses– Instructions Provided.	
Final Proposal: Students are expected to use feedback from all previous	
assignments to complete the final proposal. The proposal must include all	
components discussed in the text (see rubric and assignment sheet for details), as	
well as sections for preliminary results and recommendations/implications. Final	
papers are typically in the range of 20 - 30 pages of text but no minimum or	
maximum page requirements are mandated. You will have the option of writing	100
either an academic report or a professional report.	
All papers are to be typed, 1inch margins, 12-point font, follow APA formatting	
guidelines (double-spaced, in text references, reference list). Spelling, grammar,	
and formatting mistakes will count against the overall grade of the assignment –	
Rubric and Guidelines Provided.	
Total	600

Other Requirements

- Regular class attendance is expected. It enhances your academic success to be in every scheduled session. Attendance will not be taken, but the failure to show up to class can result in you missing valuable information and assignments.
- Class participation is extremely important, but obviously, it is quality, not quantity that counts. We can all learn from each other. It is expected that when you have some special knowledge or relevant experience you will contribute it to the learning of the other members of the class. Useful contributions, as you know, come in many forms. Sometimes a question or a brief comment can be as or more useful to the learning of the class as a long presentation.

Grading

This course will be graded on a percentage basis, with a total of 100% possible.

A	= 564 - 600	B+	= 528 - 539	C	= 444 - 479
A-	= 540 - 563	В	= 504 - 527	F	= 0 - 443
		B-	=480-503		

Professional Dispositions

See https://cehd.gmu.edu/students/polices-procedures/

Students are expected to exhibit professional behaviors and dispositions at all times.

Always come to class with a positive attitude and try to have fun as you learn about yourself, others, and the topic at hand! Much of the value of the course will be generated from in-class activities and discussion. As such, you are asked to prepare for discussion by reading assigned items (prior to class) and actively participate in the conversation.

I expect you to uphold the highest ethical standards and academic integrity. This includes refraining from cheating, fabrication, and plagiarism.

Cell phone usage, working on assignments for other courses, reading newspapers or books, playing computer games, eating, and sleeping will not be tolerated. If you participate in such behaviors, you will be asked to stop the behavior and/or asked to leave the class.

Class Schedule

DA	TE	Торіс	READINGS/ASSIGNMENTS DUE
A U G	28	Introduction to Research "Am I ever going to use this stuff?" "What's in it for me?" and other important questions. How is this class going to work?	Read O'Leary & Hunt chapters 1 & 2 before next class.
S E P T E M B E R	4	Problem Finding / Problem Solving What does my workplace need to know? What do I want to know? Making a difference by defining 'important' problems and issues.	Read O'Leary & Hunt chapter 3 before next class.
	11	Problem Finding / Problem Solving Conversion: from issues to purpose, aims, research questions. Right-sizing your research questions. Who cares? Pitching your research.	Read O'Leary & Hunt chapter 4 before next class.
	18	Informing Your Research Don't re-invent the wheel – reading to inform your research. What should you read? How do you find it? How do you know what to trust?	
	25	Informing Your Research "Can I stop reading now?" "How 'bout now?" The value of frameworks and models. There's nothing more practical than a good theory!	Read O'Leary & Hunt chapter 5 before next class.
O C T O B E R	2	Using Secondary Data Creating a persuasive argument for your research. Literature review as story-telling. Crafting a convincing proposal.	Read O'Leary & Hunt chapter 6 before next class. Focus on qualitative methods.
	9	Primary Data Collection: Qualitative Methods Is this really do-able? Understanding choices, trade-offs, and their impact on research quality and integrity.	
	16	Ethics and Research on Human Subjects Conducting research on real live humans. Learning (and following) the rules. CITI Training	Re-read O'Leary & Hunt chapter 6 before next class. Focus on quantitative methods.
	23	Primary Data Collection: Quantitative Methods Start with what you've got: Analysis/Reanalysis of existing data. Where do you get it? What do you do with it?	

DATE		Торіс	READINGS/ASSIGNMENTS DUE
	30	Primary Data Collection: Quantitative Methods When you really have to know X gathering data to meet your specific needs. (Qualitative) Formulating questions to get the information you	Read O'Leary & Hunt chapter 7 before next class. Focus on qualitative analysis methods.
N O	6	Data Analysis & Interpretation: Qualitative When you really have to know X gathering data to meet your specific needs. (Quantitative) Formulating questions to get the information you seek: interviews, and focus groups.	
V E M B	13	Data Analysis & Interpretation: Qualitative Now who do I ask? Populations, sampling, and generalizability.	Re-read O'Leary & Hunt chapter 7 before next class. Focus on quantitative analysis methods.
R	20	Data Analysis & Interpretation: Quantitative Analyzing qualitative data.	
	27	Data Analysis & Interpretation: Quantitative Analyzing quantitative data.	Read O'Leary & Hunt chapter 8 before next class.
D E C E	4	Pitching Your Research Now what? How do I use this stuff? How do I convince others it matters?	
M B E R	11		Final Project due

Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.

Core Values Commitment

The College of Education and Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles: http://cehd.gmu.edu/values/.

GMU Policies and Resources for Students

Policies

- Students must adhere to the guidelines of the Mason Honor Code (see http://oai.gmu.edu/the-mason-honor-code/).
- Students must follow the university policy for Responsible Use of Computing (see http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/).
- Students are responsible for the content of university communications sent to their Mason email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.
- Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see http://ods.gmu.edu/).
- Students must follow the university policy stating that all sound emitting devices shall be silenced during class unless otherwise authorized by the instructor.

Campus Resources

- Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or https://cehd.gmu.edu/aero/tk20. Questions or concerns regarding use of Blackboard should be directed to http://coursessupport.gmu.edu/.
- For information on student support resources on campus, see https://ctfe.gmu.edu/teaching/student-support-resources-on-campus

For additional information on the College of Education and Human Development, please visit our website https://cehd.gmu.edu/students/.