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

SRST 450 002 - Research Methods
3 credits, Spring 2019
Tuesday, 4:30 – 7:10pm – Innovation Hall 207 – Fairfax Campus

Faculty
Name: Dr. George Banks
Office Hours: by appointment
Office Location: by appointment
Phone Number: (703) 620-1297
Email: gbanks1@gmu.edu, gbanks@erols.com

Prerequisites: STAT 250, DESC 210 OM 210, SOC 313, OM 250, or IT 250 and 60 credits.

Course Description
Covers the development of empirical research designs for both practical and theoretical problems in health, fitness, and recreation resources management. Includes literature review of hypothesized relationships, and formulation of research proposals.

Course Overview
This course is a designated "Writing-Intensive" (*WI*) course – fulfilling in part the *WI* requirement for all HFRR majors – therefore, each person will complete at least 3,500 words of graded writing assignments. The course is divided into **5** smaller writing exercises to be complete throughout the semester. These will be thoroughly critiqued and graded and will form the basis for your final Research Proposal. Applicable guidelines are the ***Publication Manual of the American Psychological Association (APA)*** **(6th ed.)**

Course Delivery Method
This course includes multiple instructional strategies. Individual session formats vary and may include lecture, small group/large group discussion, hands-on, interactive work, and student presentations.

Learner Objectives
Students will be able to:
1. Define and demonstrate appropriate use of research terminology;
2. Critically evaluate published research in scientific journals and the popular press;
3. Formulate research problem statements;
4. Enumerate the values inherent in the practice of scientific research;
5. Conduct a thorough review of literature and synthesize the findings; and
6. Prepare a sound and feasible research proposal.

Professional Association Standards
Upon completion of this course, students will meet the following professional accreditation standards from the *Council on Accreditation of Parks, Recreation, Tourism and Related Professions* (COAPRT):

7.02: Students graduating from the program shall be able to demonstrate the ability to design, implement, and evaluate services that facilitate targeted human experiences and that embrace personal and cultural dimensions of diversity.

Required Texts

Riddick, C. C., & Russell, R. V. (2015*). Research methods: How to conduct research in recreation, parks, sport, and tourism* (3rd ed.). Champaign, IL: Sagamore Publishing. **(RR)**

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

Course Performance Evaluation

A. Assignments (Guidance is attached.)	Points
1. Hypothetical Deductive Modeling Framework	15
2. Journal Article Review and Research Classification	5
3. Introduction, Problem Statement, Literature Review, Hypothesis Variables	15
4. Sampling Plan	10
5. Research Design, Measurement and Data Collection	15
6. Analysis Plan	10
7. Final Research Proposal	100
Total:	170

B. Final Grading Scale

Points:	
97-100 = A	78-79 = C+
90-96 = A-	74-77 = C
88-89 = B+	70-73 = C-
84-87 = B	60-69 = D
80-83 = B-	0-59 = F

Students are allowed excused absences only. Unexcused absences or more than three (3) excused absences for a student will drop that student's grade on the grading scale.

Professional Dispositions

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

Course Schedule

Dates	**Topics/Assignments**
1/22	Course Overview Building the Scientific/Research Context Examining Theoretical Elements PRLS Theoretical Structures PRLS Research Structures PRLS Program Evaluation **RR** Steps: 1, 3, 4 and 5

1/29 Research Information Processing
Hypothetical-Deductive Modeling: A Research Information Processing Framework - (Dr. Robert Carkhuff - http://rcarkhuff.wordpress.com/body-of work/)
Inductive Reasoning
Deductive Reasoning
Identification and Definition of Constructs

RR Steps: 1, 3, 4, 5 and 7

2/5 Reviewing PRLS Research Literature
PRLS Theoretical Structures
PRLS Research Structures
Review of Assignment 1
Preview of Assignment 2

RR Steps: 2
Due: Assignment 1

2/12 Overview of Measurement in Research
Operational Definition of Constructs
Scaling
Reliability
Validity

RR Steps: 8, 14A
Due: Assignment 2

2/19 Building the Research Plan
PRLS Theoretical Structure (Assignment 1)
Analysis of PRLS Research Literature (Assignment 2)
Review of PRLS Research Framework (Assignment 1)
Identification of PRLS Research Problem and Goal from Assignment 1
Overview of Qualitative and Quantitative Research

RR Steps: 1, 2, 3, 4, 5, 6, 7 and 14B Figure 12

2/26 Overview of Qualitative Research Methods
The Research Problem
Analysis of the Research Framework
Specifying the Research Question
Qualitative Research Methodology
Validity
Review of Assignments 1 and 2

RR Steps: 3, 4, 7 and 14B

3/5 Overview of Quantitative Research Methods
The Research Problem
Analysis of the Research Framework
Specifying the Research Question
Quantitative Research Methodology
Validity
Review of Assignments 1 and 2

RR Steps: 3, 4, 7 and 14A

3/12 **Spring Break**

3/19 Reviewing the Draft Research Plan
Introduction
Problem Statement
Literature Review
Research Questions/Hypothesis
Constructs/Variables

RR Steps: 1, 2, 3, 4, 5, 6 and 7
Due: Assignment 3

3/26 Building the Research Design
Measurement
Qualitative Methods
Quantitative Descriptive Methods
Quantitative Experimental Methods
Data Collection Tools
Preparation for Data collection
Validity
Ethical Responsibilities
Contact Cover Letter

RR Steps: 7, 8, 9, 10, 13, 14A and 14B

4/2 Building the Sampling Plan
Probability Sampling
Non Probability Sampling

RR Step: 6

4/9 Building the Analysis Plan: Qualitative Analysis
Managing Data
Making Tentative Conclusions
Verifying Conclusions

RR Step: 14B

Due Assignments 4 and 5

4/16 Building the Analysis Plan: Quantitative Analysis
Descriptive Statistics
- Central Tendency
- Variability
- Association: Correlation
Inferential Statistics
- Population Parameters
- Hypothesis Testing
Nonparametric Methods

RR Step: 14A

4/23 Reviewing the Research Proposal
Proposal Framework
Hypothetical Deductive Modeling Framework
Literature Review
Introduction, Problem Statement, Lit Review, Hypothesis Variables
Sampling Plan
Research Design, Measurement and Data Collection
Analysis Plan
Implementing the Study - Pilot Testing
Seeking Proposal Approval
Discussion and Revisions

RR Steps: 1 - 14
Due: Assignment 6

4/30 Course Wrap-up
Lessons Learned Regarding Research
Next Steps for Using or Continuing Learning about Research
Due: Assignment 7

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 https://catalog.gmu.edu/policies/honor-code-system/).

- 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 https://ds.gmu.edu/).

- Students must silence all sound emitting devices 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/ .

SPECIAL NOTE
Because the data we collect for our pilot study is for educational purposes only (i.e. we share our results as part of our process to understand research), we do not complete the Human Subject's Review Board application. Therefore, the data we collect in this course may not be presented in any context other than this course. However, if you wish to use these data for a conference presentation or as the foundation for a research process, please let me know and I will be happy to work with you to obtain approval from Mason's HSRB.

Guidance for Assignments

1. Hypothetical Deductive Modeling Thinking Framework (15 points)
Science is a systematic process for explicating the unknown. Research consists of the tools for conducting scientific inquiries. The use of these tools is guided by information representation and processing frameworks. In this assignment students will build their information processing frameworks to serve as a map for learning and applying research methodology.

This framework will include the following:
- Representations for phenomena in the areas of PRLS
- Theoretical relationships between phenomena
- Identification of constructs representative of phenomena
- Paths of Inductive reasoning potentially supported by Qualitative Research and related methodology
- Paths of Deductive reasoning leading to hypothesis testing implemented through Quantitative Design and related methodology including data analysis, leading to applied research interventions with relation to targeted phenomena and constructs.
-Elements of PRLS Program Evaluation

2. Journal Article Review and Research Classification (5 points)
The intent of this assignment is to increase your familiarity with evidence-based peer-reviewed journal articles.
Find an article in your area of concentration. Read the article thoroughly and respond to each of the following using complete sentences (bulleted responses are not acceptable for this course):
a. What was the topic studied?
b. What are the key terms?
c. What are the definitions for the key terms?
d. What is the specific research question or problem
e. What procedures were used to gather data?
f. Who were the participants?
g. What scales or instruments were used?
h. What was the method of data analysis?
i. What were the major conclusions and implications?

3. Introduction, Problem Statement, Literature Review, Hypothesis Variables (15 points)
The intent of this assignment is to apply your curiosity, conceptual and practical understanding of health, fitness and recreation resources to asking questions and defining research problems. This assignment will benefit you in developing an awareness of research potential in your field of interest and planning for your final research proposal. Specifically, you are to write an introduction to your research proposal and your preliminary review of literature and submit a copy of each research article used in the review.

The writing will include:
a. An **introduction** to the topic to be investigated in your study (including the background and significance of the problem);

b. A statement of the problem (which could be the last sentence in your introduction);
c. An integrated review of pertinent literature (*at least* 5 *current*, evidence-based/empirical and peer-reviewed research articles – do not confuse these with articles from newspapers which are not empirical nor peer reviewed);
d. Two research questions or testable hypotheses regarding the outcome of your study; and
e. Identification of key constructs in your research questions or your independent and dependent variables and definitions in each of your hypotheses.

4. Sampling Plan (10points)
Having selected a problem, formulated a hypothesis and completed a preliminary literature review, describe a sample appropriate for evaluating your questions or hypotheses. Include a consideration of Probability and Non Probability sampling. This assignment is to be written in proposal format and should be specific to your proposed full study.

Include:
a. A complete definition of the target and accessible populations from which the sample would be drawn. This definition should thoroughly describe the size of these populations and relevant characteristics (e.g., age, ability, socioeconomic status, etc.). This is based on your proposed study.
b. A description of how you will determine the sample size. Include a summary statement that indicates the sample size that will be selected and justification for this size. Be sure to identify your anticipated response rate and cite your source.
c. An explanation of the procedural techniques by which you would select the sample and form it into groups (if appropriate). This technique should be described in detail, including justification of the technique selected. For example, if using "stratified sampling," do not just say that stratified sampling will be used; indicate on what basis (i.e., characteristic) the population will be stratified and how group members (and how many) will be selected.
d. Indicate the possible sources of sampling bias.

5. Research Design, Measurement & Data Collection (15 points)
The intent of this assignment is to continue development of the research proposal, specifically identifying the research design to be used, measurement tools available and detailing the data collection procedures. Having selected a problem, formulated a hypothesis, completed a preliminary literature review, and described your population and sample, identify the **m**easures and data collection procedures to be used in this study and design an appropriate cover letter and survey instrument. This assignment is to be written in proposal format (with cover letter and instrument in appendices). You are to address the following:

Measurement, Design and Data Collection
I. Briefly describe the data to be gathered and the measurement instrumentation to be used. Discuss the basis for establishing the reliability and validity of the instruments. In other words, if you plan to use one or more already existing scales or measures, describe each. Explain, as well, how you plan to check the validity and reliability of

scores obtained with your instruments. If you plan to use an existing instrument, summarize what you have been able to learn about the validity and reliability of previous results.

II. Identify and describe the research design, Qualitative or Quantitative to be used in this study (go back to your reading on "Research Designs"). Describe why the design was selected; potential threats to internal validity (e.g., subject characteristics, location, instrumentation, maturation, subject attitude, and implementation) and how you have designed the study to minimize the potential effects of these threats.

III. Describe the procedural technique(s) by which you would collect the data for a complete study (e.g., structured face-to-face or telephone interviews; mail, fax or email surveys; pre/post). The specific data collection technique(s) should be described in detail (when, where, how long, etc.). Indicate the exact procedures for how you will make contact with subjects and the advantages and disadvantages of your chosen method of collection. Justify why you selected the technique you did.

IV. Identify any possible ethical problems in carrying out such a study and how the problems could be remedied. Be sure to include: possible *harm* to participants (if any); possible *problems of confidentiality* (if any); and possible *problems of deception* (if any).

Instrument and Cover Letter Development
Develop an appropriate cover letter written to your theoretical participants that will reference the collection procedures you have determined. This letter must include, but is not limited to the following:
a. Letterhead, date, name and address, greeting, signature and title;
b. What the study is about and why it is useful;
c. Why the recipient is important and why they should complete your questionnaire;
d. A promise of confidentiality or anonymity and an explanation of a numbering system if used; and,
e. Assurance that the information will be used, incentives that will be given, if appropriate, and a thank you.

6. Analysis Plan (10 points)
The intent of this assignment is to develop a plan for analysis of data. The data analysis is for Qualitative or Quantitative research designs.

For Qualitative designs discuss the following:
a. Managing data
b. Making tentative conclusions
c. Verifying conclusions

For Quantitative designs discuss the following:
a. Descriptive Statistics
   - Central Tendency
   - Variability
   - Association: Correlation
b. Inferential Statistics

- Population Parameters
- Hypothesis Testing

c. Nonparametric Methods.

7. Final Research Proposal (100 points)

The intent of this assignment is to apply your conceptual, and practical understanding of your profession to asking questions and defining research problems. This assignment will help you develop an awareness of the research potential in your field of interest and will serve as a beginning for your final project or thesis that you will complete during future independent studies.

Guidelines:

- **All work in this course should be written in the third person** using complete sentences.
- **Use subheadings** appropriate to the assignment (e.g., Introduction, Literature Review, Statement of the Problem, References, etc…) to serve as a guide for "piecing together" your final proposal and to help you be sure you have responded to all requirements of the assignment.
- **At least ten of your references must be research articles appearing in refereed journals**. Additional references providing support for significance and definitions **may** come from other literature sources.
- **Appropriately cite all sources following the current APA guidelines.**
- Create an **APA-style cover page** with running headers throughout the document.
- Create an **APA-style references/works cited page.**

Grading:

- Overall, grading will be based on completeness of responses, clarity and accuracy of written presentation**. See rubric for details.**
- Proposal should be developed through the integration of material from your courses, readings and practical experiences, and should demonstrate independent thought and attention to detail (e.g., grammar and spelling).

FINAL PROPOSAL ASSIGNMENT DUE: *No later than TBD 2019 @ 5:00pm.*

Papers received AFTER that will be considered late and will receive a 20% reduction in points per 24-hour period after noon (Saturdays & Sundays are included).

Item	0 Points Student made no changes to original section based on feedback and suggestions from draft review.	1-2 Points Student made some changes to original section based on feedback and suggestions from draft review but further changes were required.	3-4 Points Student made extensive changes to original section based on feedback and suggestions from draft review.	5 Points Student made all changes to original section based on feedback and suggestions from draft review and/or no changes were required.
Introduction				
Integrated Review of the Literature				
Synthesis of the Literature				
Rationale for the Study				
Problem Statement				
Research Questions				
Variables and Definitions				
Hypotheses				
Population				
Determination of Sample Size				
Sampling Procedure				
Sampling Bias				
Research Design				
Instrumentation				
Research Setting				
Procedures for Data Collection				

Data Analysis				
References				
Instrumentation				
Cover Letter