

GEORGE MASON UNIVERSITY
School of Recreation, Health, and Tourism

SRST 623.001—Research Design and Statistical Reasoning (3)
Fall 2013

DAY/TIME:	T 7:20 p.m. - 10:00 p.m.	LOCATION:	Robinson Hall B105
INSTRUCTOR:	Dr. George Banks	EMAIL ADDRESS:	gbanks@erols.com
OFFICE LOCATION:	by appointment	PHONE NUMBER:	(703) 620-1297
OFFICE HOURS:	by appointment	FAX NUMBER:	by arrangement

PREREQUISITES: Graduate standing

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 OBJECTIVES

Students will be able to:

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.

NATURE OF COURSE DELIVERY

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.

REQUIRED TEXT

Leedy, P., & Ormrod, J. (2005). *Practical research* (10th ed.). Columbus: Merrill Prentice Hall.
(PR)

RECOMMENDED READING

Thomas, J. R., Nelson, J. K., & Silverman, S. J. (2010). *Research methods in physical activity* (6th ed.). Champaign, IL: Human Kinetics.

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

SRST Research Focus

Areas:

- International Sport Management
- Recreation Administration
- Sports and Leisure
- Sport Coaching
- Sport Management

Journals:
Human Dimensions of Natural Resource Management
International Journal of Sport Communication
International Journal of Sport Management
Journal of Leisure Research
Journal of Park and Recreation Administration
Journal of Sport Management
Leisure Sciences
Leisure Studies
Quest
Research Quarterly for Exercise and Sport
Sociology of Sport Journal
Therapeutic Recreation Journal
 Other journals as identified

EVALUATION

A. Assignments (Guidance is attached.)	<u>Points</u>
Project 1. Establish structures.	15
Project 2. Review the research literature for SRST.	15
Project 3. Develop a framework outlining qualitative and quantitative methods for research.	15
Project 4. Develop a framework outlining descriptive and inferential procedures of statistical analysis for research.	15
Project 5. Draft the research plan.	<u>40</u>
Total:	100

B. Final Grading Scale

94-100 = A	80-83 = B-
90-93 = A-	70-79 = C
88-89 = B+	0-69 = F
84-87 = B	

TENTATIVE COURSE SCHEDULE

Dates	Topics/Assignments
8/27	Course Overview Building the Scientific/Research Context Examining Theoretical Elements Ch 1 PR

- 9/3** Establishing Structures
 SRST Theoretical Structure
 Research Framework
 Ch 1, 2 and 3 **PR**
- 9/10** Reviewing SRST Research Literature
 SRST theoretical structure
 Research framework
 Review of Project 1
 Preview of Project 2
 Ch 1, 2, and 3 **PR**
- 9/17** Research Information Processing
 A Research Information Processing Framework - Hypothetical-Deductive
 Modeling (Dr. Robert Carkhuff - <http://rcarkhuff.wordpress.com/body-of-work/>)
 Inductive Reasoning
 Deductive Reasoning
 Definition of Constructs
 Review of the SRST Theoretical and Research Framework (Project 1)
 Ch 1, 2, and 3 **PR**
 Due: Project 1
- 9/24** Overview of Measurement in Research
 Operational Definition of Constructs
 Scaling
 Reliability
 Validity
 Ch 4 and 1 **PR**
 Due: Project 2
- 10/1** Building the Research Plan
 SRST Theoretical Structure (Project 1)
 Analysis of SRST Research Literature (Project 2)
 Review of the Research Framework (Project 1)
 Identification of SRST Research Problem and Goal from Review of Project 1
 Overview of Qualitative and Quantitative Research Methods
 Ethical Issues in Research
 Preview of Project 5
 Ch 2, 3, 4 and 5 **PR**
- 10/8** **NO CLASS**
- 10/15** Review of Qualitative Research Procedures
 The Research Problem
 Analysis of the Research Framework
 Specifying the Research Question
 Qualitative Research Methodology

Data Analysis
Validity
Ch 6, 7 and 4 **PR**

10/22 Quantitative Descriptive Research
The Research Problem
Analysis of the Research Framework
Specifying the Research Question
Quantitative Descriptive Research Methodology
Validity
Ch 8 and 4 **PR**

10/29 Quantitative: Experimental Research
The Research Problem
Analysis of the Research Framework
Specifying the Research Hypothesis
Experimental Designs
Validity
Ch 9, 10 and 4 **PR**

11/5 Quantitative Data Analysis: Descriptive Statistics
Analysis of the Research Framework
Statistical Procedures
- Central Tendency
- Variability
- Association: Correlation
Ch 11 and 4 **PR**
Due: Project 3

11/12 Quantitative Data Analysis: Inferential Statistics
Analysis of the Research Framework
Statistical Procedures
- Population Parameters
- Hypothesis Testing
Nonparametric Methods
Ch 11 and 4 **PR**

11/19 Completing the Research Plan and Proposal
Complete the Research Plan (Preview Project 5)
- Identification of structures (Project 1)
- - SRST Theoretical structure
- - Research framework
- Analysis of SRST research literature for the research framework
(Project 2)
- Identification of SRST research problem and goal from review of Project 1
- Select Qualitative and Quantitative research design methodology (Projects 3
and 4)
- Data collection

Draft the Research Proposal

- Proposal organization
- Format
- Writing guidelines

Ch 1, 2, 3, 4, 5 and 12 **PR**

Publication Manual of the American Psychological Association

Due: Project 4

11/26

Review Draft Research Plans

Class review of Drafts for Project 5

- SRST theoretical structure
- Research framework
- Research problems

Class Discussion and Feedback

SRST: Introduction to Writing a Project or Thesis

Ch 1 - 12 **PR**

12/3

Directions for SRST Research: A Perspective

Structures

- SRST theoretical structure
- Research framework

SRST Delivery Problems for Research Inquiry

Ch 1, 2, 3, and 4 **PR**

12/10

Course Wrap-up

Lessons Learned Regarding Research

Next Steps for Using or Continuing Learning about Research

Due: Project 5

Project Guidance

Project 1. Establish Structures. (15 points)

Theoretical: Describe the SRST area within which you work: International Sport Management, Recreation Administration, Sports and Leisure, Sport Coaching, Sport Management, or other.

- o Intended outcomes
- o Resources
- o Strategies
- o Assessment of intended outcomes at the following levels:
 - process
 - acquisition
 - use
 - results

Research: Describe the delivery setting within which you work in the SRST area.

- o Intended outcomes
- o Resources
- o Strategies

- o Assessment of intended outcomes at the following levels:
 - process
 - acquisition
 - use
 - results

Project 2. Review the research literature for SRST. (15 points)

Select ten (10) research articles from the SRST area within which you work: International Sport Management, Recreation Administration, Sports and Leisure, Sport Coaching, Sport Management, or other. Include five research articles for the delivery setting within which you work in the SRST area.

For each article provide the following:

- o A brief summary of the issue/problem/question addressed (1 paragraph)
- o A specific statement of problem, question, or hypothesis
- o Key concepts, constructs, terms, variables related to the research problem or question
- o Definitions for key concepts, constructs, terms, or variables.
- o A brief description of the research methodology as appropriate (1 to 2 paragraphs)
- o A brief description of the statistical analysis (1 paragraph)
- o A brief summary of research results (1 paragraph)

For this project, students will complete an in-class analysis of their research articles with relation to SRST theoretical structures and research frameworks.

Project 3. Develop a framework outlining qualitative and quantitative research methods for research. (15 points)

For each qualitative and quantitative method:

- o What is involved
- o Objective
- o Reasons
- o Context
- o Procedures

Project 4. Develop a framework outlining descriptive and inferential procedures of statistical analysis for research. (15 points)

For each descriptive and inferential procedure list the following:

- o What is involved
- o Objective
- o Reasons
- o Context
- o Procedures

Project 5. Draft the research plan. (40 points)

Develop a draft research plan outline.

1. Identify structures. (Project 1)
 - o SRST Theoretical Structure
 - o Research Framework
2. Summarize SRST research literature related to the research framework. (Project 2)

- o A summary of issues/problems/questions addressed
 - o Specific statements of problem, question, or hypothesis included
 - o Key concepts, constructs, terms, variables related to the research issues/problems/questions
 - o Definitions for key concepts, constructs, terms, or variables.
 - o A brief description of the research methodologies used
 - o A brief description of the statistical analyses used
 - o A brief summary of research results
3. State the SRST research problem and goal identified from a review of the research framework and the research literature review.
 4. Identify and operationally define key constructs.
 5. State the specific research question or hypothesis addressed through the research methodology.
 6. Describe qualitative or quantitative procedures to be used. (Project 3)
 - o Specific methods
 - o Sampling
 - o Data collection
 - o Validity
 - o Data analysis. (Project 4)

Student Expectations

- Students must adhere to the guidelines of the George Mason University Honor Code [See <http://oai.gmu.edu/honor-code/>].
- Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <http://ods.gmu.edu/>].
- 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 George Mason University 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 must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.

Campus Resources

- The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <http://caps.gmu.edu/>].
- The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing [See <http://writingcenter.gmu.edu/>].
- For additional information on the College of Education and Human Development, School of Recreation, Health, and Tourism, please visit our website [See <http://rht.gmu.edu>].

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

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.

