

**GEORGE MASON UNIVERSITY**  
**College of Education and Human Development**  
**Kinesiology**

KINE 450.006 – Research Methods  
3 Credits, Spring 2017  
Wednesday/7:20-10:00pm Innovation Hall 317- Fairfax Campus

**Faculty**

Name: Mrs. Esther C. Nolton  
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**Prerequisites/Corequisites**

60 credits and one of the following: STAT 250, DESC 210, OM 210, SOC 313, OM 250, or IT 250

**University Catalog 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. Fulfills writing intensive requirement in the major.

**Course Overview**

As this course has been designated “Writing-Intensive” (WI) – fulfilling in part the WI requirement for all HFRR majors – you are required to complete at least 3,500 words of graded writing assignments. A series of writing exercises will be completed throughout the semester, thoroughly critiqued, and graded. Together, these will form the basis for your final research proposal. It is to your benefit to study and incorporate the comments given, as each assignment builds upon the next.

**Course Delivery Method**

The course will be delivered using a mix of a lecture and discussion format. However, other approaches may be used to facilitate learning. These include: videos, demonstrations, and in-class activities. Overall this will be a highly interactive class and students will be encouraged to participate

**Learning Outcomes or Objectives**

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

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 Standards**

Upon completion of this course, students will have met the following professional accreditation standards from:

*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.
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*Commission on the Accreditation of Athletic Training Education competencies met:*

PD 13	Describe and differentiate the types of quantitative and qualitative research and describe components and process of scientific research (including statistical decision-making) as it relates to athletic training research.
PD 14	Interpret the current research in athletic training and other related medical and health areas and apply the results to the daily practice of athletic training.
PD 4	Develop a research project (to include but not limited to case study, clinical research project, literature review) for an athletic training-related topic.

*Commission on Accreditation of Allied Health Education Programs (CAAHEP)*

1.3.14	Ability to obtain informed consent.
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**Required Texts**

Matthews TD, Kostelis KT. *Designing and Conducting Research in Health and Human Performance*. San Francisco, CA: Jossey-Bass; 2011.

**Recommended Readings**

American Medical Association. *AMA Manual of Style: A Guide for Authors and Editors*. 10th Ed. New York, NY: Oxford University Press; 2007.

Gillen CM. *Reading Primary Literature: A Practical Guide to Evaluating Research Articles in Biology*. San Francisco, CA: Pearson Education; 2007.

Hancock GR, Mueller RO, eds. *The reviewer's guide to quantitative methods in the social sciences*. New York, NY: Routledge; 2010.

Hurley WH, Denegar CR, and Hertal J. *Research Methods: A Framework for Evidence-Based Clinical Practice*. 8th ed. Baltimore, MD: Lippincott Williams & Wilkins; 2011.

Lomax RG, Hahs-Vaughn DL. *An Introduction to Statistical Concepts*. 3rd ed. New York, NY: Routledge; 2012

Patton MQ. *Qualitative Research & Evaluation Methods*. 3rd ed. Thousand Oaks, CA: Sage Publications, Inc.; 2002

Raab S, Craig DI. *Evidence-Based Practice in Athletic Training*. Champaign, IL: Human Kinetics; 2016.

## **Supplementary Material**

Supplementary materials will be used in class and posted on Blackboard/MyMason Portal. Please print these materials and bring them to class so that you have access to them when needed.

## **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).

In-class activities will be assigned during the class meeting and due at the end of the course meeting. Out of class assignments are listed on the syllabus and will be submitted at the beginning of the corresponding class meeting time **ON BLACKBOARD. NO LATE assignments will be accepted!** Your name **MUST** be on your papers/exams when you turn them in. Failure to put your name will result in a 0 for the assignment/exam.

- **Assignments and/or Examinations**

*Research Proposal* – The creation of a research proposal is a requirement of this course. The research proposal includes a series of tasks that will be thoroughly critiqued and graded. Together, these will form the basis for your research proposal. It is to your benefit to incorporate the comments given into your final research proposal. The guidelines and grading criteria for these tasks will be available on Blackboard.

### *Assignment Summaries*

*Note – All assignments will be due prior to the start of class at 7PM on the day they are due (unless otherwise stated). They must be submitted via Blackboard.*

#### **1. Topic Proposal Assignment**

The intent of this assignment is to encourage an early start on your research proposal including your topic selection and literature search.

#### **2. Article Review and Presentation**

The intent of this assignment is to increase your familiarity with quantitative evidence-based peer-reviewed journal articles. Select one of the articles you are planning to use for your research proposal. Read the article thoroughly. Succinctly summarize and critique the article. You will present (5 minutes) a summary of the key points from your article. This will serve as an opportunity to improve your oral communication.

#### **3. Introduction and Review of Literature**

The intent of this assignment is to apply your curiosity, in addition to your conceptual and practical understanding of your topic to asking questions and defining research problems. Specifically, you are to write an introduction to your research proposal, a specific statement of the problem, an integrated review of the pertinent literature, identification of variables, and testable hypotheses.

#### **4. Sampling Plan and Methods**

The intent of this assignment is to describe the population and the target sample size appropriate for evaluating your hypotheses. The methods 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. This assignment also includes a discussion of how you would validate and confirm the reliability of your instrument, in addition to a discussion of the possible ethical problems and their solutions for your study.

## 5. Analysis Plan

The intent of this assignment is to develop data analysis plan on how you would proceed to analyze your data if you were to conduct your proposed study. Your plan must include the appropriate descriptive and inferential statistics.

## 6. Presentation

The intent of this assignment is for you to share your research proposal with your colleagues via a 10 minute PowerPoint presentation. This assignment will allow you to gain experience in oral presentation skills. As part of the experience, your colleagues & I may ask questions about your study.

## 7. Final Research Proposal

The intent of this assignment is for you to apply your conceptual and practical understanding of your research topic to prepare a final and complete research proposal. Your proposal should illustrate your familiarity with problem formation and hypothesis development, review and critical analysis of the scholarly literature related to your study, justification of appropriate methodology, and consideration of the implications of your research. This assignment is a revision and extension of all content included in previous assignments.

<u>Assignments</u>	<u>Points</u>
1 – Topic Selection	25
2 – Article Review & Presentation	50
3 – Introduction, Literature Review, Problem Statement, Hypotheses	100
4 – Sampling Plan (50)/Methods (50)	100
5 – Data Analysis Plan	75
6 – Presentation	100
7 – Final Research Proposal	100
Participation	60
Quizzes (4)	90
<b>TOTAL</b>	<b>700</b>

- **Other Requirements**

*Attendance and Participation*

Attendance is **required** for this class. Arriving to class late or leaving early will be counted as an absence. Students are expected to show up prepared to class and participate during class activities. Students who know they will need to miss a class for a legitimate reason should contact the instructor before the class. Students who unexpectedly miss a class for an excused reason should contact the instructor within 24 hours of missing the class. Make-up tests, quizzes, assignments, or other grades will be granted for excused absences only. Excused absences include: serious illness, official university excused absences and extenuating circumstances. It is the student's responsibility to contact the instructor in order to obtain the make-up work.

- **Grading**

Every attempt will be made to grade and return assignments in a timely manner to provide students with constructive feedback. To provide students the opportunity to fully assess the feedback provided on graded assignments, the professor will be happy to answer any questions at the next class period following the return of the assignments or during the professor's office hours. The professor acknowledges the passion with regards to grades, but unprofessional and uncivil behavior either in person or through other modes of communication will not be tolerated.

A = 94 – 100%	B+ = 88 – 89.9%	C+ = 78 – 79.9%	D = 60 – 69.9%
A- = 90 – 93.9%	B = 84 – 87.9%	C = 74 – 77.9%	F = 0 – 59.9%
	B- = 80 – 83.9%	C- = 70 – 73.9%	

### Professional Dispositions

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

#### Academic Integrity

GMU is an Honor Code University; please see the University Catalog for a full description of the code and the honor committee process. The principle of academic integrity is taken very seriously and violations are treated gravely. What does academic integrity mean in this course? First, it means that when you are responsible for a task, you will be the one to perform that task. When you rely on someone else’s work in an aspect of the performance of that task, you will give full credit in the proper, accepted form. Another aspect of academic integrity is the free play of ideas. Vigorous discussion and debate are encouraged in this course, the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives and traditions. When in doubt, please ask for guidance and clarification.

#### Technology Use During Class

As per GMU policy, all sound emitting technology is required to be turned off during the class meeting time. No sound emitting technology (e.g., cell phones, smart phones, iPads, Tablets, pagers, etc.) is allowed at any time during the class period. Students who are observed using any form of technology inappropriately (e.g., sending text messages from cell phones, visiting social networking sites from laptops, etc.) will be dismissed from class for the day, counted as an absence, and not permitted to make up missed assignments. Students may be asked to bring computers to class for a particular purpose and they are only to be used in this capacity.

#### Correspondence

The preferred method of communication outside of class is email. Emails should originate from a George Mason email account and be in a professional format (i.e., emails should not look like a text message!). If email does not originate from a George Mason University account, the instructor will not reply to the email. Emails should be written in proper format. If the suggested proper format is not followed, the instructor reserves the right to not reply to the email. The suggested format is as follows:

Dear Mrs. Nolton, (*Beginning salutation*)

I am looking forward to your class. (*Text body*)

Regards, (*Ending Salutation*)

(*Your name*)

### Class Schedule

DATE				TOPIC	READINGS/ASSIGNMENT DUE
#1	W	Jan	25	Introduction to KINE 450 & Research	Chapter 1 & 2

DATE				TOPIC	READINGS/ASSIGNMENT DUE
#2	W	Feb	1	Presenting the Problem <i>In-Class Activity: Article Review</i>	<b>#1 Topic Proposal Assignment</b> Chapter 2 & 3
#3	W	Feb	8	Research Interpretation and Ethical Considerations	<b>Quiz 1</b> Chapter 8
#4	W	Feb	15	Article Summary Presentations; Review of Literature	<b>#2 Article Review Assignment</b> Chapter 4
#5	W	Feb	22	Developing the Research Proposal <i>In-Class Workday: Review of Literature</i>	Chapter 9
#6	W	Mar	1	Sampling and Data Quality <i>In-Class Activity: Validity</i>	<b>Quiz 2</b> Chapter 9 & 10
#7	W	Mar	8	Research Designs: Part 1	<b>#3 Introduction &amp; Review of Literature Assignment</b> Chapter 5 & 6
☺ <b>SPRING BREAK – NO CLASS!!</b> ☺					
#8	W	Mar	22	Research Designs: Part 2 <i>In-Class Activity: Methods</i> <i>In-Class Workday: Sampling/Methods</i>	Chapter 7
#9	W	Mar	29	Descriptive Statistics <i>In-Class Workday – Proposal &amp; Data Analysis</i>	<b>#4 Sampling/Methods Assignment</b> Chapters 11,12, & 13
#10	W	Apr	5	Inferential Statistics <i>In-Class Workday – Proposal &amp; Data Analysis</i>	<b>Quiz 3</b> Chapters 11,12, & 13
#11	W	Apr	12	Presenting Research <i>In-Class Workday – Final Presentation</i>	<b>#5 Data Analysis Plan Assignment</b> Chapter 14 & 15
#12	W	Apr	19	Reviewing an Article; <i>In-Class Activity – Peer-Reviewing</i> <i>In-Class Workday – Final Proposal</i>	
#13	W	Apr	26	Putting Together Your Final Proposal <i>In-Class Workday – Final Proposal</i>	<b>Quiz 4</b>
#14	W	May	3	Student Presentations & Feedback Session	<b>#6 All Presentations Due via Blackboard by 7PM</b>
#15	W	May	10	Have a Great Summer!!	<b>#7 Final Proposals Due May 10<sup>th</sup>, 2017 at 10:15PM</b>

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 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 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 with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services and inform their instructor, in writing, as soon as possible. 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 turned off during class unless otherwise authorized by the instructor.

### *Campus Resources:*

- Support for submission of assignments to Tk20 should be directed to [tk20help@gmu.edu](mailto:tk20help@gmu.edu) or <https://cehd.gmu.edu/aero/tk20>. Questions or concerns regarding use of Blackboard should be directed to [See <http://coursessupport.gmu.edu/>].
- The Writing Center 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/>].
- The 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 Student Support & Advocacy Center staff helps students develop and maintain healthy lifestyles through confidential one-on-one support as well as through interactive programs and resources. Some of the topics they address are healthy relationships, stress management, nutrition, sexual assault, drug and alcohol use, and sexual health (see <http://ssac.gmu.edu/>). Students in need of these services may contact the office by phone at 703-993-3686. Concerned students, faculty, and staff may also make a referral to express concern for the safety or well-being of a Mason student or the community by going to <http://ssac.gmu.edu/make-a-referral/>.

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

