

GEORGE MASON UNIVERSITY
College of Education and Human Development
Kinesiology

KINE 450-004 – Research Methods
3 Credits, Spring 2018
Tuesdays & Thursdays, 9:00-10:15am
Bull Run Hall 253, Science & Technology Campus

Faculty

Name: Mrs. Esther C. Nolton, MEd, LAT, ATC, CSCS
Office Hours: Tuesdays and Thursdays, By Appointment
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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.

American Psychological Association (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: American Psychological Association.

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

Hurley WH, Denegar CR, and Hertel 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)	40
Crossword Puzzle Assignment	50
TOTAL	700

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

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 love statistics. (*Text body*)

Regards, (*Ending Salutation*)

(*Your name*)

Class Schedule

CLASS NO.	DAY	DATE	TOPIC	READINGS/ASSIGNMENT DUE
1	T	Jan 23	Introduction to KINE 450 & Research	Chapter 1 & 2
2	R	Jan 25	Gathering Evidence; Developing Research Topics	Chapter 2 & 3
3	T	Jan 30	Current Research Examples <i>In-Class Activity: Article Review</i>	
4	R	Feb 1	Ethical Considerations in Research	Chapter 8
5	T	Feb 6	Presenting the Problem; Matching Questions with Methods	#1 Topic Proposal Assignment Quiz 1
6	R	Feb 8	Article Summary Presentations; Annotated Bibliographies	
7	T	Feb 13	Review of Literature; Writing the Introduction <i>In-Class Activity: Lit Review Outline</i>	Chapter 4
8	R	Feb 15	Sampling Considerations	#2 Article Review Assignment
9	T	Feb 20	Developing the Research Proposal	Abstract Due for CEHD Research Symposium by 5 PM Chapter 9
10	R	Feb 22	Reliability and Validity	Chapter 9 & 10
11	T	Feb 27	Data Collection	Quiz 2
12	R	Mar 1	Quantitative Research Methods	Chapter 5
13	T	Mar 6	Qualitative Research Methods	#3 Introduction & Review of Literature Assignment Chapter 6
14	R	Mar 8	Mixed Research Methods	Chapter 7
SPRING BREAK – NO CLASSES!!				
15	T	Mar 20	Methods Review <i>In-Class Activity: Methods</i>	Chapters 5-7
16	R	Mar 22	Descriptive Statistics	Chapters 11,12, & 13
17	T	Mar 27	Sensitivity, Specificity, and Predictive Values	Chapter 10
18	R	Mar 29	Inferential Statistics <i>In-Class Workday: Sampling/Methods</i>	Chapters 11,12, & 13
19	T	Apr 3	Statistics Review <i>In-Class Workday – Proposal and Data Analysis</i>	#4 Sampling/Methods Chapters 11,12, & 13
20	R	Apr 5	Creating an Abstract; Defending Your Research	Quiz 3 Chapter 14 & 15

21	T	Apr 10	Presenting Research <i>In-Class Workday – Final Presentation</i>	#5 Data Analysis Plan Assignment
XC	W	Apr 11	CEHD Research Symposium at 6pm Congratulations to those presenting! Come support your classmates!	
22	R	Apr 12	Reviewing an Article <i>In-Class Activity – Peer-Reviewing</i>	
23	T	Apr 17	Research Conferences and Invited Talks <i>In-Class Workday – Final Proposal</i>	
24	R	Apr 19	Putting Together Your Final Proposal <i>In-Class Workday – Final Proposal</i>	Quiz 4
25	T	Apr 24	NO CLASS	Work on Presentations and Proposal
26	R	Apr 26	Student Presentations & Feedback	#6 All Presentations Due via Blackboard by 9 AM
27	T	May 1	Student Presentations & Feedback	Crossword Puzzle Due
28	R	May 3	Student Presentations & Feedback <i>In-Class Workday – Final Proposal</i>	
FINAL	R	May 10	Have a Great Summer!!	#7 Final Proposals Due May 10th, 2018 at 10 AM

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

Updated: 1/1/2018

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 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 or <https://cehd.gmu.edu/aero/tk20>. Questions or concerns regarding use of Blackboard should be directed to <http://coursesupport.gmu.edu/>.
- For information on student support resources on campus, see <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>.
- 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 <https://cehd.gmu.edu/students/>.

