

GEORGE MASON UNIVERSITY  
College of Education and Human Development  
Kinesiology

KINE 450.007—Research Methods  
3 Credits, Spring 2017  
T/R 10:30-12:00 249 Bull Run Hall Science & Technology Campus

**FACULTY**

Name: Dr. Marcie Fyock, DAT, VLAT, ATC  
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**PREREQUISITES/COREQUISITES**

60 credits and grade of C or better in one of the following: STAT 250, 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 allied health fields such as kinesiology, therapeutic recreation, and athletic training. Includes literature review of hypothesized relationships, and formulation of research proposals.

**COURSE OVERVIEW**

**Writing-Intensive Designation**

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 lecture and discussion format. However, other approaches may be used to facilitate learning. These include: videos, demonstrations and in-class activities.

**LEARNER 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 meet the following professional accreditation standards:

*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 <i>that</i> 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.
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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.

## REQUIRED TEXT

Matthews T., D. & Kostelis K., T. (2011) Designing and Conducting Research in Health and Human Performance. Jossey-Bass.

Additional readings/articles as assigned. These will be posted on Blackboard.

## 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 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 expected that you will incorporate the comments given into your final research proposal. The guidelines and grading criteria for these tasks will be available on Blackboard.

This course will be graded on a point system, with a total of 675 possible points.

	<b>Points</b>
Assignments	
#1 Topic Selection	25
#2 Article Review & Presentation	50
#3 Introduction, Literature Review, Problem Statement, Hypotheses	200
#4 Sampling Plan/Methods	100
#5 Data Analysis Plan	75
#6 Presentation	100
#7 Final Research Proposal	100
Attendance/Participation	25
<b>TOTAL</b>	<b>675</b>

### Assignment Summaries

*Note – All assignments will be due prior to the start of class on the day they are due (unless otherwise stated).*

#### **1. Topic Selection Assignment**

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

#### **2. Written Article Review/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. 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/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/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.

- **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 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.

##### **Class Activities & Assignments**

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. **NO LATE assignments will be accepted!** Your name **MUST** be on your assignments when you turn them in. Failure to put your name will result in a 0 for the assignment.

##### **Final Grades:**

Once your FINAL GRADE at the end of the semester is posted on mymasonportal, you will have 24 hours to inquire about it. After that period, your grade will be posted as final.

- **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	C+ = 78 – 79	D = 60 – 69
A- = 90 – 93	B = 84 – 87	C = 74 – 77	F = 0 – 59
	B- = 80 – 83	C- = 70 – 73	

### PROFESSIONAL DISPOSITIONS

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

### CLASS SCHEDULE

DATE				TOPIC	READINGS/ASSIGNMENT DUE
#1	T	Jan	24	Introduction to KINE 450 & Research	Chapter 1& 2
#2	R	Jan	26	Developing the Problem and using the literature; Developing Research Topics; Interpreting the research <i>In-Class Activity – Article review</i>	Chapter 3
#3	T	Jan	31	Examples of Current Research <i>In-Class Activity- Begin Proposal Topic Selection</i>	
#4	R	Feb	2	<i>Jana Mattson- Retrieving Information; Using the library productively</i>	
#5	T	Feb	7	<i>In-Class workday – Proposal Topic Assignment</i>	
#6	R	Feb	9	Ethical considerations in research; When and how to believe what you read	Chapter 8
#7	T	Feb	14	Writing the Introduction <i>In-Class-Activity- Introduction</i>	<b>#1 Proposal Topic Selection Assignment</b>
#8	R	Feb	16	Article Presentations Writing the Introduction; Review of Literature <i>In-Class-Activity- Review of Literature</i>	<b>#2 Article Review Assignment</b> Chapter 4
#9	T	Feb	21	Writing the Introduction; Review of Literature <i>In-Class-Activity- Review of Literature</i>	

DATE				TOPIC	READINGS/ASSIGNMENT DUE
#10	R	Feb	23	<i>In-Class Workday- Review of Literature</i>	
#11	T	Feb	28	Developing the Research Proposal; Sampling and Methods	Chapter 9
#12	R	March	2	<i>In-Class Workday- Sampling; Methods</i>	<b>#3 Introduction/Review of Lit Assignment</b>
#13	T	March	7	Getting good data; reliability, validity, trustworthiness, credibility and other issues	Chapter 10
#14	R	March	9	Quantitative Research Design	Chapter 5
#15	T	March	21	Qualitative Research Design & Mixed Methods	<b>#4 Sampling/Methods Assignment</b> Chapter 6 & 7
#16	R	March	23	Action Research Design	
#17	T	March	28	Descriptive Statistics & Inferential Statistics	Chapter 11, 12 & 13
#18	R	March	30	<i>In-Class Workday- Proposal Data Analysis Plan</i>	
#19	T	April	4	<i>TBD</i>	<b>#5 Analysis Plan Assignment</b>
#19	R	April	6	<i>TBD</i>	
#20	T	April	11	<i>Defending your Research- Research conferences</i>	<b>Chapter 14 &amp; 15</b>

DATE				TOPIC	READINGS/ASSIGNMENT DUE
#21	R	April	13	Reviewing research In Class Activity: Peer review	
#22	T	April	18	Giving a Professional Presentation	
#23	R	April	20	<i>Workday- Presentations &amp; Final Proposal</i>	
#24	T	April	25	Student Presentations & Feedback Session CEHD Research Symposium 6:00-8:30 PM 1201 Merten Hall	<b>#6 All Presentations Due via Blackboard</b>
#25	R	April	27	Student Presentations & Feedback Session	
#26	T	May	2	Student Presentations & Feedback Session	
#27	R	May	4	<i>In Class Workday– Final Proposals</i>	
		May	16	<i>Final Research Proposal Due via Blackboard</i>	<b>#7 Final Proposal Due 10:30 AM</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 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](mailto: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/>.
- 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/>.**

### **ACADEMIC LOAD**

In addition to attending the lectures there will be regular assignments that may require anywhere from 5-15 hours of work per week. Additionally, regular readings will be assigned to students. Students are expected to complete all outside work on time. Extensions **will not** be granted on assignments unless an extenuating circumstance arises. The purpose of the assignments is to aid students in learning the material.

### **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.

### **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 Dr. XXXX (*Beginning salutation*)

I have a question regarding one of the assignments. (*Text body*)

Regards, (*Ending Salutation*)

“John Doe” (*Your name*)



