George Mason University
College of Education and Human Development
Exercise, Fitness and Health Promotion

EFHP 612 Scientific Foundations of Applied Kinesiology (3)
Fall 2016
Tuesdays/Thursdays: 9:00 – 10:15 AM
Bull Run Hall 256 – Science and Technology Campus

Faculty

Name: Dr. Joel Martin

Office hours: Wednesday 9:00-10:30 am or by appointment

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Prerequisites/Corequisites
Admission to the EFHP Graduate Program

University Catalog Course Description
An integrated study of human anatomy, physiology, chemistry, and microbiology, presenting a complete picture of how the body functions and the diseases and disorders that cause the body to malfunction.

Course Overview
This course will provide students the opportunity to survey the various sub-disciplines of applied kinesiology and their methods of inquiry. The course will place emphasize on evidence-based practices and facilitate the development of cognitive skills necessary for critically appraising research literature.

Course Delivery Method
This course is delivered through a hybrid model using classroom instruction (face-to-face) and online assignments.

Learner Outcomes or Objectives
At the completion of this course students should be able to:

1. Describe the sub-disciplines of applied kinesiology.
2. Critically evaluate published research in the sub-disciplines of applied kinesiology.
3. Demonstrate an understanding of the scientific process across the sub-disciplines of applied kinesiology.
4. Present an evidence-based practice description in a selected sub-discipline of applied kinesiology.

Optional Texts
Greenhalgh, Trisha (2010) How to Read a Paper: The Basics of Evidence-Based Medicine. 4th Ed. BMJ Books.

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 Examinations**
    - **Class Activities and participation– 10 points**
    Attending, being professional, and active participation are important components of this course and are expected from all students. This class will involve both in-class and out of class activities. These activities will be communicated with students in advance.

    - **Scientific Research Proposal – 70 points - DUE DECEMBER 8, 2016**
    This assignment is the culminating project for the course and will require both paper and a class presentation your paper. The assignment is designed to assist you with identifying, clarifying, and the thoughtfully developing a research topic and theoretical framework for your graduate research project. You will be required to write and present a scientific research proposal describing a project of interest to you and a faculty member within the EFHP program. The development of a research proposal illustrates familiarity with problem, formation and hypothesis development, review and critical analysis of the scholarly literature, justification and application of appropriate methodology, and consideration of the implications of research findings. This assignment is comprised of multiple drafts each having a specified amount of points and due dates that can be seen on the course schedule. Students are expected to turn-in all drafts online by 10:30am on the due date specified. Students are also expected to print **2 copies** of any draft and bring these to class on the specified due date. Failure to submit both an electronic copy prior to class **or** to bring 2 printed copies of a draft to class will result in 0 points for that assignment.

    - **Proposal Presentation – 20 points - DUE DECEMBER 15, 2016**
    The intent of this assignment is to develop your presentation skills and communicate your proposed research to your colleagues and professors. IMPORTANT - *This is a Performance Based Assessment.*

- **Other Requirements**
    - **Attendance**
        - Students are expected to be on time, attend all class meetings and be prepared for in class assignments and projects. Excused absences include the following: illness (must bring a receipt or note from a doctor), family death, athletic/academic event, and others at the discretion of the instructor. For known upcoming absences, students must contact the instructor at least one week in advance to the missed class to make up work. In the case of illness or some other unforeseen absence, the student must contact the instructor via e-mail or telephone. At the next attended class meeting the student will discuss material that is to be completed. It is the student's obligation to pursue any make-up work.
    - **Alternate Schedule**
        - This course may have professionals from the field as guest speakers. Due to their professional responsibilities, guest speakers may not be able to attend a scheduled

class time. Therefore, this course may require meeting outside of regularly scheduled class times and/or travel to sites off campus. Students will be informed of such meetings one week in advance of the scheduled class meeting. Students will be expected to arrange transportation to and from the meeting site.

- o **Academic Load**
  - Although many students must work to meet living expenses, employment and personal responsibilities are not acceptable reasons for late arrivals, missed classes, or incomplete assignments. Employment must not take priority over academic responsibilities. For additional information on this subject, please see the GMU Academic Catalog (http://catalog.gmu.edu/content.php?catoid=5&navoid=104#Registration_attendance). Students failing to observe these guidelines should expect no special consideration for academic problems arising from the pressures of employment.

- o **Honor Code**
  - Students are held to the standards of the George Mason University Honor Code (see http://honorcode.gmu.edu for details). Violations, including cheating and plagiarism, will be reported to the Honor Committee. Student assignments may be put through plagiarism detecting software.

- o **Written Assignments**
  - All assignments must be typed in Microsoft Word, and formatted as follows (*unless otherwise specified*): double spaced, 12 point Times New Roman font, 1 inch margins, your name and title in the running header at top left had corner, continuous line numbers on left margin, and page numbers centered in footer. Failure to comply with any or all parts of this format will result in an unacceptable assignment, which corresponds to zero (0) points.
  - Pay close attention to spelling and grammar as these will count towards your grade on written assignments. American Medical Association Manual (AMA) of Style (10th edition) format must be used for all written work in this class (e.g., in referencing, creation of tables, and formatting headers for paper sections).
  - Assignments must be turned in on Blackboard/MyMason Portal by the beginning of class on the specified date due (*unless otherwise specified*). No late assignments will be accepted. It is recommended that students keep copies of all submitted work.

- o **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. Additionally, no laptop computers (e.g., netbooks, notebooks, etc.) will be permitted for use during class time unless with permission from the instructor.

- **E-mail Correspondence**

Only messages that originate from a George Mason University address will be accepted. Please address the subject line for all email pertaining to this course as: *EFHP 612: Last Name – purpose of email.* The following is an appropriate professional format:

Subject: EFHP 612: Squarepants – Help with long division

Dear Dr. Martin, *(Introductory salutation)*

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

Regards, *(Ending Salutation)*

Mr. Sponge Bob Squarepants *(Your name)*

Note: All email will be responded to in the order in which it is received. Students should allow 48 hours for a response.

- **Zotero**
    - All students will have to use Zotero as their citation management software, and provide a digital copy of the library. Online tutorials, guides, and download of plugin is available at:
      http://infoguides.gmu.edu/content.php?pid=23687&sid=170423
    - Zotero works best with Firefox browser, which is also free for download at:
      http://www.mozilla.org/en-US/firefox/new/ There is also an extension for the google browser (Chrome).
    - There is also a standalone version for windows and Mac that can be downloaded from https://www.zotero.org/.

- **Course Performance Evaluation Weighting**

Grading

	Assignments	Points	Due Dates
#1	Class Activities	10	Sept 8, 15, 22, 29 Oct 6, 20, 27 Nov 3, 10, 17 Dec 1
#2	Research Proposal	70 Total	See Course Schedule
	• Introduction and purpose	*28 (5 points each draft 18 points final)*	
	• Methods	5	
	• References	5	

		Appendices:		
		• Literature Review	*28 (5 points each draft 13 points final)*	
		• Research Questions / Hypotheses / Specific Aims	1	
		• Ethics/CITI Training Certificate	1	
		• Project Timeline	1	
		• Human Subjects Review Board / Informed Consent Form	1	
#3	Proposal Presentation		20	Dec 15 – 1st Year Students; Dec 13 – 2nd Year Students
TOTAL			100	

- **Grading Policies**

Course Grading Scale

The student's final letter grade will be earned based on the following scale:

Grade	Percentage	Quality Points	Grade	Percentage	Quality Points
A+	93%	4.00	B	83%	3.00
A	93%	4.00	B-	80%	2.67*
A-	90%	3.67	C	73%	2.00
B+	87%	3.33	F	<73%	0.00

Note: * Although a B- is a satisfactory grade for a course, students must maintain a 3.00 average in their degree program and present a 3.00 GPA on the courses listed on the graduation application.

Professional Dispositions

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: 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 or https://cehd.gmu.edu/api/tk20. Questions or concerns regarding use of Blackboard should be directed to http://coursessupport.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/).

- 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 Office of Student Support staff helps students negotiate life situations by connecting them with appropriate campus and off-campus resources. Students in need of these services may contact the office by phone (703-993-5376). 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://studentsupport.gmu.edu/, and the OSS staff will follow up with the student.

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

Class Schedule

Week	Date	Topic	Chapter/Assignment Due Date
1	Aug 30[T]	Welcome! Overview of course.	
	Sept 1TH	Why research? What is evidence?	Chapter 1
2	Sept 6[T]	Searching the literature	Chapter 3
	Sept 8TH	*Online: Identifying a Topic and Searching the Literature*	*Chapter 2 / Online assignment*
3	Sept 13[T]	How to read a research paper	
	Sept 15TH	*Online: Reading research*	*Online assignment*
4	Sept 20[T]	Synthesizing literature: Critical evaluation of literature and annotation tools	
	Sept 22TH	*Online: Synthesizing literature: Critically read and review literature*	*Online assignment*
5	Sept 27[T]	Synthesizing literature: Synthesis matrix & concept mapping	
	Sept 29TH	*Online: Concept mapping for clarity and progress*	*Online assignment*
6	Oct 4[T]	Developing and refining research questions *PhD Guest Lecture* *Location: 256 Bull Run Hall*	**Synthesis spreadsheet**
	Oct 6TH	*Online: Outlining the your research project*	*Online assignment*
7	Oct 11[T]	***No Class – Columbus Day Recess***	
	Oct 13TH	Present purpose and research questions paragraph to class 1st Year Students Present / Discuss – 5 minutes each *Location: 256 Bull Run Hall*	
8	Oct 18[T]	Conducting and refining your literature review *PhD Guest Lecture* *Location: 256 Bull Run Hall*	**Search materials due**
	Oct 20TH	*Online*: *Reading Research Designs 1*	*Chapter 9,10 / Online assignment*
9	Oct 25[T]	Matching research questions to your proposed analyses *PhD Guest Lecture* *Location: 256 Bull Run Hall*	**1st Draft of lit review**
	Oct 27TH	*Online: Reading Research Designs 2*	*Chapter 6, 7 / Online assignment*
10	Nov 1[T]	Developing and refining your research methods *PhD Guest Lecture* *Location: 256 Bull Run Hall*	Chapter 4, 5 **2nd Draft of lit review**

	Nov 3[Th]	*Online: Reading Research Designs 3*	*Chapter 12, 13 / Online assignment*
11	Nov 8[T]	Developing and refining your research data collection & Management procedures	**3rd Draft of lit review**
	Nov 10TH	*Online: Excel Data Management & Organization*	*Online assignment*
12	Nov 15[T]	Developing and refining your statistical analysis: matching statistics with designs *PhD Guest Lecture* *Location: 256 Bull Run Hall*	**Draft of purpose due**
	Nov 17TH	*Online: SPSS tutorial*	*Online assignment*
13	Nov 22[T]	Writing day / Feedback day	**Final purpose due / 1st Draft of introduction**
	Nov 24TH	***No Class – Thanksgiving Recess***	
14	Nov 29[T]	Ethical Issues in Research	
	Dec 1TH	*Online: CITI Training*	*Conduct CITI Training and provide Certificate of Completion: Group 2 – Biomedical Sciences*
15	Dec 6[T]	Giving professional presentations / Feedback day	**2nd Draft of introduction due**
	Dec 8TH	Presentation practice	**Final proposal due**
	Dec 15TH	**Presentations – 7:30 am to 10:15 pm** ***Location: 256 Bull Run Hall***	**Presentations – 1st Year Students**
	Note: **The instructor reserves the right to make changes to the course syllabus and/or schedule at any time. Changes will always posted on MyMason Portal/BlackBoard**		

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

Assessment Rubric(s)

Proposal Presentation Assignment

Grading Rubric

Standard	Exceeds Expectations (4)	Meets Expectations (3)	Below Expectations (2)	Unacceptable (1)
Appeared well prepared	Student was very well prepared	There were a few minor instances in which student	There were numerous instances in which it was	Student was clearly not prepared for presentation

		could have been better prepared but overall they appeared prepared	apparent that student was not prepared	
Demonstrated good use of voice, speaking clearly and using voice inflection, maintained eye contact with audience and did not read verbatim off slides or notes	Student demonstrated good use of voice, spoke clearly w/ voice inflection, maintained eye contact with audience and did not read verbatim off slides or notes	With a few minor exceptions student demonstrated good use of voice, spoke clearly w/ voice inflection, maintained eye contact with audience and did not read verbatim off slides or notes	Numerous times student did not demonstrate good use of voice, spoke clearly w/ voice inflection, maintained eye contact with audience and did not read verbatim off slides or notes	Student did not demonstrate good use of voice, spoke clearly w/ voice inflection, maintained eye contact with audience and did not read verbatim off slides or notes throughout the presentation
Utilized visual aides and/or multimedia effectively	Student utilized visual aids and/or multimedia effectively	With a few minor exceptions student utilized visual aids and/or multimedia effectively	Numerous times student did not utilize visual aids and/or multimedia effectively	Student did not use visual aides and/or multimedia
Presented content in a logical and organized manner	Student presented content in a logical and organized manner	Minor improvements are needed in terms of presenting material in a logical and organized manner	Major improvements are needed in terms of presenting material in a logical and organized manner	The presentation content was not presented in a logical and organized manner
Demonstrated ability to respond effectively to audience questions	Student effectively and appropriately responded to audience questions	Minor improvements in responses to audience questions are needed	Major improvements in responses to audience questions are needed	Student did not respond effectively to audience questions

Total Score: / 20

Comments:

Other Useful Campus Resources:

Writing Center: (703) 993-1200; http://writingcenter.gmu.edu, Fairfax campus – A114 Robinson Hall; Prince William campus – 204 Occoquan Bldg.

University Libraries: "Ask a Librarian" http://library.gmu.edu/mudge/IM/IMRef.html

Counseling And Psychological Services (Caps): (703) 993-2380; http://caps.gmu.edu

University Policies: The University Catalog, http://catalog.gmu.edu, is the central resource for university policies affecting student, faculty, and staff conduct in university affairs