

GEORGE MASON UNIVERSITY
School of Recreation, Health, and Tourism

EFHP 612 Scientific Foundations of Applied Kinesiology (3)
Fall 2011

DAY/TIME:	M, W 10:30AM – 11:45AM	LOCATION:	PW OCC # 204
PROFESSOR:	Dr. Shane Caswell	EMAIL ADDRESS:	scaswell@gmu.edu
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OFFICE HOURS:	M, W 10:30AM – 11:45AM	FAX NUMBER:	703-993-2025

PREREQUISITES

Admission to the EFHP Graduate Program

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 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

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 emphasis on evidence-based practices and facilitate the development of cognitive skills necessary for critically appraising research literature.

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.

REQUIRED READINGS

Greenhalgh, Trisha (2010) How to Read a Paper: The Basics of Evidence-Based Medicine. 4th Ed. BMJ Books
Additional required readings will be assigned by instructor.

ADDITIONAL REQUIREMENTS

EndNote X4 or X5 student version software. Thomson Reuters. (<http://www.endnote.com/enacademic.asp>)

EVALUATION

Class Participation – Attending, being professional, and active participation are important components of this course and expected.

Reading Research Modules – (RRM) *Due: Wednesdays, September 7, 14, 21 at noon*

Students will be required to complete 7 online modules associated with assigned readings using the Blackboard portal. The following are required for all modules:

1. Read the associated book chapter,
2. Find an article in your discipline that is related to the type of research discussed in the chapter
3. Complete chapter assignment based upon article you found in the following order:
 - a. Provide a hyperlink to the article
 - b. Reference the article using American Medical Association (AMA) formatting guidelines
 - c. Provide a brief justification as to how this article relates to the chapter topic and your chosen discipline
 - d. Provide a succinct justification (e.g. 2-3 sentences) for each answer for the associated chapter checklist located in Appendix 1 of your book.
 - e. Where appropriate you should reference the section of the article as support for your justification by providing the page number of the article. Use the following format (p.6).
4. Go to Blackboard assignments tab and complete the assignment

Note: If the instructor has to read the article you are referencing than you have not done a good enough job in explaining your answers to the checklist questions.

Guest Speaker Participation – (GSP) *Due: At the conclusion of class for each guest speaker*

This course will have researchers and professionals from the field as guest speakers. Readings will be assigned prior to each guest speaker. Students are expected to come to each guest presentation having completed the readings and prepared to engage in discussions with the speaker. To facilitate discussions students will complete a one-page typed summary of the assigned readings and list three pressing issues and/or questions for the speaker. Pressing issues and/or questions should be thoughtful. Assignments will be collected at the conclusion of class following each guest speaker.

Evidence-Based Synthesis Project – (EBSP) *Due: Monday, September 19 at 10:00AM*

This assignment is intended to develop students' abilities to formulate a clinical question, deliberately search the relevant peer-reviewed literature, thoughtfully consider new information, synthesize multiple concepts, and succinctly communicate in an intelligible manner using technical writing. The general steps of the project are as follows:

1. First, students will be required to develop a clinical question relating to some popular or commonly accepted practice or intervention (e.g. treatment or exercise) in their area of focus.
2. Second, students will be required to search the peer reviewed research literature and find a one landmark study relating to their clinical question from each decade beginning in 1980 and continuing until present day (e.g. 3 articles: 1982, 1997, 2011).
3. Third, students must write a concise synthesis paper detailing how their chosen topic has evolved.
 - a. The paper should begin by stating your clinical question.

- b. The paper must be formatted as follows: Maximum of 2 pages (not including reference section), single spaced, 12 point courier font, 1 inch margins, name and title in running header at top left hand corner, continuous line numbers on left margin, page numbers centered in footer.
- c. In text citations and references must follow the most current style guidelines published by the American Medical Association (AMA).
- d. Five points will be deducted for each spelling, grammatical, or formatting error.
- e. A digital copy must be turned in online with the accompanying Endnote library associated with the assignment.

Defending Your Research Idea – *Due: Monday, December 5 at 10:30AM*

This assignment is the culminating project for the course and will require both paper and a class presentation/defense. You will be required to write concise paper describing a research project of interest to you and defending its merits. More information on this project will be provided separately later in the semester.

GRADING

ASSESSMENT METHOD	POINTS TOTAL
Reading Research Modules	35
Guest Speaker Participation	30
Evidenced Based Synthesis Project	15
Defending Your Research Idea	20
TOTAL	100

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.

TENTATIVE COURSE SCHEDULE

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DAY	DATE	TOPIC	REQUIREMENT
1	8/29 ^M	Welcome! Overview of course requirements	Read Chapter 2
2	8/31	Searching the literature and bibliographic management software	
3	9/5 ^M	Labor Day No class	Read Chapters 3,4
4	9/7		Read Chapter 1, RRM 1, 2
5	9/12 ^M	Developing a clinical question	
6	9/14		RRM 3 & 4
7	9/19 ^M	What is evidence?	EBSP
8	9/21		RRM 5, 6, 7
9	9/26 ^M	Historical Research Methods -- Dr. David Wiggins	GSP
10	9/28		
11	10/3 ^M	Qualitative Research and Physical Education -- Dr. Matthew Ferry	GSP
12	10/5		
13	10/11*	Biomechanics -- Dr. Nelson Cortes	GSP
14	10/12		
15	10/17 ^M	Special Populations -- Dr. Jatin Ambegaonkar	GSP
16	10/19		
17	10/24 ^M	Strength and conditioning -- Dr. Margaret Jones	GSP
18	10/26		
19	10/31 ^M	Applied physiology -- Dr. Charles Robison	GSP
20	11/2		
21	11/7 ^M	Nutritional interventions and performance-- Dr. Jan Redmond	GSP
22	11/9		
23	11/14 ^M	Educational research in Kinesiology -- Dr. Amanda Caswell	GSP
24	11/16		
25	11/21 ^M	Clinical Prediction Models -- Dr. Ashley Long	GSP
26	11/23		
27	11/28 ^M	Injury control and public health perspective -- Dr. Shane Caswell	GSP
28	11/30		
29	12/5	Presentations	
30	12/7	Presentations	
31	12/14	Final Exam Period – 10:30am to 1:15pm	

Note: Faculty reserves the right to alter the schedule as necessary.

Student Expectations

- Students must adhere to the guidelines of the George Mason University Honor Code [See <http://academicintegrity.gmu.edu/honorcode/>].
- 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/1301gen.html>].
- 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.
- Students are expected to exhibit professional behaviors and dispositions at all times.

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>].

