

GEORGE MASON UNIVERSITY
School of Recreation, Health, and Tourism

EFHP 610: Advanced Exercise Physiology (3)
Fall 2011

DAY/TIME:	T/Th 10:30 – 11:45 am	LOCATION:	PW 249 Bull Run Hall
PROFESSOR:	Dr. Charles Robison	EMAIL ADDRESS:	crobiso4@gmu.edu
OFFICE LOCATION:	PW 210 Bull Run Hall	PHONE NUMBER:	703-993-7115
OFFICE HOURS:	T TH 1:00 – 3:00pm, or by appointment	FAX NUMBER:	703-993-2025

PREREQUISITES:

Graduate standing or permission of the instructor

COURSE DESCRIPTION:

Lecture, demonstration, and seminar experiences in applying research findings to understanding physiological function and effects of exercise on people.

COURSE OBJECTIVES:

Upon completion of EFHP 610 students should be able to:

1. Describe the responses that occur during exercise in the body's various physiological systems
2. Describe the physiological changes that occur as a result of aging and explain how these changes affect performance.
3. Explain how gender differences affect performance
4. Prepare and present research findings on a topic related to a specific area of exercise physiology
5. Demonstrate the ability to critically review current research and connect findings to topics discussed in class.

COURSE OVERVIEW:

Topics that are covered include the physiology of the skeletal muscle, cardiorespiratory, and endocrine systems. Additional topics to be addressed include: body composition, gender differences, aerobic and anaerobic power, and aging. Material for the course will be drawn from the required textbook and assigned readings of published research. Class lectures will be presented in PowerPoint with handouts posted on Blackboard in advance of class meetings.

- Assignments must be turned in at the beginning of class on the specified date due or **no credit will be given**.
- Attendance - Students are expected to attend all classes. A grade of zero will be assigned to any missed presentation without prior permission from the instructor.

- Classroom Demeanor - Students are expected to attend all class sections, actively participate in class discussions, complete in-class exercises, and fulfill all assignments. Anyone exhibiting inappropriate behavior may be asked to leave (e.g. sleeping in class, texting). University policy states that all sound emitting devices shall be turned off during class unless otherwise authorized by the professor.

REQUIRED READINGS:

McArdle, W.D., F.I. Katch, and V.L. Katch. *Exercise Physiology: Nutrition, Energy, and Human Performance (7th edition)*. Lippincott, Williams & Wilkins, Philadelphia, 2010.
 ISBN-13: 978-0-7817-9781-8

Specific journal articles will be assigned.

EVALUATION:

Written Examinations	60% (Objectives 1,2,3)
Final Project	25% (Objectives 4,5)
Article Presentation	10% (Objectives 4,5)
Class Participation	5% (Objectives 1-5)

FINAL EXAM:

10:30 – 1:15pm, Tuesday, December 13th

Grading Scale

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	

Tentative Course Schedule

Date	Topic	Readings/Assignments Due
8/30	Course Introduction	
9/1	Nutrition Overview	Ch 1, 2
9/6	Nutrition for exercise	Ch 3, Article 1
9/8	Bioenergetics Energy Transfer	Ch 5,7
9/13	Bioenergetics PC, CHO metabolism	Ch 6
9/15	Bioenergetics Fat, PRO metabolism	Ch 6
9/20	Bioenergetics Energy Expenditure	Ch 8-10, Article 2
9/22	Exam 1	
9/27	Cardiovascular	
9/29	Cardiovascular	
10/4	Cardiovascular	
10/6	Cardiovascular	Article 3
10/11	<i>No Class- Columbus Day recess</i>	

10/13	Training for Aerobic Power	
10/18	Training for Aerobic Power	Article 4
10/20	Exam 2	
10/25	Muscle	
10/27	Muscle	
11/1	Muscle	Article 5
11/3	Training for Power, Muscular Strength	
11/8	Training for Power, Muscular Strength	Article 6
11/10	Exam 3	
11/15	Body Composition Assessment; Physique, Performance and Physical Activity	
11/17	Overweight, Obesity, and Weight Control	
11/22		
11/24	<i>No Class- Thanksgiving</i>	
11/29	Physical Activity, Health, and Aging	Article 7
12/1	Physical Activity, Health, and Aging	Article 8
12/6	Final Project	
12/8	Final Project	
12/13	Final Exam, 10:30 – 1:15pm, Tuesday, December 13th	

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>].

