

GEORGE MASON UNIVERSITY  
School of Recreation, Health, and Tourism  
Division of Health and Human Performance

KINE 310—Exercise Physiology I (3)  
Summer I 2012

DAY/TIME: M-TH 9:30 – 11:45 a.m. LOCATION: PW BRH 247  
PROFESSOR: Adam Ayash EMAIL ADDRESS: [aayash@masonlive.gmu.edu](mailto:aayash@masonlive.gmu.edu)  
OFFICE LOCATION: TBA  
OFFICE HOURS: T 12 p.m. – 2:00 p.m.

#### PREREQUISITES

BIO 124/125 and KINE/ATEP 300

#### COURSE DESCRIPTION

Introduce students to the physiologic, neuroendocrine, and biochemical changes of the human body that are associated with exercise and work.

#### COURSE OBJECTIVES

Upon successful completion of this course, students will:

1. Demonstrate a theoretical knowledge regarding the physiological responses and capacity for exercise by the human body.
2. Apply the principles of exercise physiology to help themselves and others to achieve optimum work performance.
3. Analyze the effects of work on the human body.
4. Demonstrate an understanding of current topics in the practice of exercise physiology.

#### REQUIRED READINGS

McArdle, WD, Katch, FI & VL Katch (2011) Essentials of Exercise Physiology. 4th Edition. McGraw-Hill Publishing (required)

#### COURSE OVERVIEW

The course will be conducted in lecture format and is designed to be an introduction to the physiological responses by the human body to exercise in relation to nutrition and energy, energy transfer, the physiologic support systems work, training and training adaptations, and the benefits of exercise in relation to body composition and aging.

#### NATURE OF COURSE DELIVERY

This course will be delivered in a face-to-face type of environment. This class will consist of predominantly lecture format instruction and group based activities.

#### CLASS POLICIES

**✓ Attendance is required for success in this class. The student is responsible for any information presented, discussed and assigned in class regardless of whether or not the student is present.**

**Make-up tests, quizzes, assignments, or other grades will be granted for excused absences only:**

- serious illness (doctor's note required)
- official university excused absences (with proper documentation and prior notification)
- extenuating circumstances (PRIOR approval should be obtained or direct contact made with the instructor at least 24 hours of the event)
- Please be aware that any student who does not attend the lecture during the initial drop/add phase and has not communicated with me is subject to being administratively dropped from the roster. Roll will be taken up until the last day to add a class only and will not be used in grade calculation.

- ✓When contacting the instructor(s) in reference to class issues via **e-mail (best way to communicate with me is through GMU email)** or come talk to me before/after class.
- ✓**Please check Blackboard e-mail account prior to coming to class and on a regular basis. If I am ill or there is a change in the class location, materials required, or meeting time, I will send an email out via Blackboard to all of your Mason student accounts. Blackboard is also a good way to track your progress during the semester, which I encourage you to do.**
- ✓Students are always encouraged to ask additional questions on the material.
- ✓If you would like to meet outside of class set up an appointment with me and confirm via email.
- ✓All students are expected to conduct their work for this class as spelled out in the George Mason University Honor Code.
- ✓As per GMU policy, all sound emitting technology is required to be silenced/off during class. However, students may use laptops, Ipad, tablets to take notes. The professor reserves the right to dismiss a student for inappropriate use of sound emitting technology.

## EVALUATION

Requirements	Points
Exams	
#1 Midterm	100
#2 Final (cumulative)	100
Quizzes (4 @ 10pts)	40
Participation	10
<b>TOTAL</b>	<b>250</b>

## Grading Scale

A = > 235	B+ = 220–224	C+ = 195–199	D = 150–174
A- = 225–233	B = 210–219	C = 185–194	F = < 149
	B- = 200–209	C- = 175–184	

## TENTATIVE COURSE SCHEDULE

DATE			TOPIC	READINGS/ASSIGNMENT DUE
M	May	21	Class Intro, Nutrition & Energy	Chapter 2 & 3
T		22	Nutrition & Energy	Chapter 2 & 3
W		23	Fundamentals of Human Energy Transfer	Chapter 5
Th		24	Human Energy Transfer During Exercise	Chapter 6
M		28	Memorial Day = NO CLASS!	Review Chapters 2-6
T		29	Assessing Human Energy Generating Capacity During Exercise	Chapter 7
W		30	Energy Expenditure During Rest & Physical Activity	Chapter 8
Th		31	Cardiovascular System & Midterm Review	Chapter 10
M	June	4	Midterm Exam	Chapters 2-8, 10
T		5	Pulmonary System	Chapter 9

DATE		TOPIC	READINGS/ASSIGNMENT DUE
W	6	Neuromuscular System	Chapter 11
Th	7	Neuromuscular System	Chapter 11
M	11	Hormones Exercise & Training	Chapter 12
T	12	Hormones Exercise & Training	Chapter 12
W	13	Exercise Training & Adaptations	Chapters 13-15
Th	14	Exercise Training & Adaptations	Chapters 13-15
M	18	Aides to Performance	Chapter 4
T	19	Body Comp, Obesity, & Weight Control	Chapter 16
W	20	Body Comp, Obesity, & Weight Control, Physical Activity & Aging/Disease Prevention	Chapter 16-17
Th	21	Final Exam!	Cumulative (mostly from Chapters 9, 11-17)

*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>].

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.

