

**GEORGE MASON UNIVERSITY**  
**School of Recreation, Health, and Tourism**

KINE 410: Exercise Physiology II (3)  
Fall 2012

|                  |  |                |                      |
|------------------|--|----------------|----------------------|
| DAY/TIME:        | M/W 12:00 – 1:15 pm                      | LOCATION:      | PW 246 Bull Run Hall |
| PROFESSOR:       | Dr. Charles Robison                      | EMAIL ADDRESS: | crobiso4@gmu.edu     |
| OFFICE LOCATION: | PW 205 Bull Run Hall                     | PHONE NUMBER:  | 703-993-7115         |
| OFFICE HOURS:    | T TH 1:00 – 3:00pm,<br>or by appointment | FAX NUMBER:    | 703-993-2025         |

**PREREQUISITES:**

BIOL 124, BIOL 125, KINE 310

**COURSE DESCRIPTION:**

Provides study in the advanced theory of exercise physiology. Knowledge related to the physiologic, neuroendocrine, and biochemical changes of the human body associated with both a single bout of exercise and chronic exercise training will be addressed.

**COURSE OBJECTIVES:**

Upon completion of KINE 410 students should be able to:

1. Obtain theoretical knowledge relative to the human's physiologic responses to and capacity for performing work
2. Apply the principles of mammalian physiology to help themselves and others achieve optimum work performance
3. Provide intelligent and factual answers related to the effects of work on the human body and effectively communicate the implications of those effects.

**COURSE OVERVIEW:**

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.

**NATURE OF COURSE DELIVERY:**

This course will be delivered in a face-to-face type of environment. This class will consist of both lecture and laboratory instruction.

**SPECIAL REQUIREMENTS:**

This course requires a laboratory fee of \$25.00 payable to George Mason University. This fee is due at the beginning of the second-class meeting (August 29, 2012) and you need to pay with a check. You should make your check payable to George Mason University and in the Memo section write in "KINE 410 Lab Fee." A receipt will be issued to you upon payment.

## REQUIRED READINGS:

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

## EVALUATION:

|   |     |
|---|-----|
| A. Written Examinations (4)                     | 45% |
| B. Lab Reports                                  | 25% |
| C. Performance Enhancing Substance Paper        | 20% |
| D. Performance Enhancing Substance Presentation | 10% |

## GRADING SCALE

|                  |                  |                  |                 |
|------------------|------------------|------------------|-----------------|
| A = 93.5 – 100   | B+ = 87.5 – 89.4 | C+ = 77.5 – 79.4 | D = 59.5 – 69.4 |
| A- = 89.5 – 93.4 | B = 82.5 – 87.4  | C = 72.5 – 77.4  | F = 0 – 59.4    |
|                  | B- = 79.5 – 82.4 | C- = 69.5 – 72.4 |                 |

## TENTATIVE COURSE SCHEDULE

Week # 1 Introduction, Energy and Phosphagen System

Week # 2 Carbohydrate Metabolism

Week # 3 Lactate Lab, Fat and Protein Metabolism

Week # 4 **Exam 1**, Cardiovascular Anatomy and Physiology

Week # 5 Cardiovascular Regulation and Integration

Week # 6 Functional Capacity of the Cardiovascular System, Cardiovascular Lab

Week # 7 Respiration

Week # 8 **Exam 2**, Neuromuscular Anatomy

Week # 9 Neural Control of Human Movement

Week # 10 Skeletal Muscle Structure and Function, Muscle Lab

Week # 11 Muscle Adaptations

Week # 12 **Exam 3**, Muscle Soreness and Fatigue

Week # 13 Recovery from Exercise

Week # 14 The Endocrine System

Week # 15 **Exam 4**

Monday, 12/17, 10:30 – 1:15pm, **Performance Enhancing Substance Presentations**

*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.

