

## **Applied Exercise Physiology – KINS 3700 Fall 2008**

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

<b>Description</b>	This class will cover the acute physiological responses and chronic adaptations to exercise. This includes neuromuscular, metabolic, cardiovascular, hormonal, and respiratory systems as they pertain to acute and chronic exercise. The major goal of the class is to develop a basic understanding of exercise physiology and its applications.	
<b>Prerequisites</b>	cbio2200-2200L and cbio2210-2210L	
<b>Instructor</b>	Mike Schmidt, Ph.D.	
Office:	101D Ramsey	
Phone:	706-542-6577	
Email:	<a href="mailto:schmidt@uga.edu">schmidt@uga.edu</a> (best way to reach me)	
<b>Office hours</b>	Monday and Wednesday, 11:00–12:00, or by appointment	
<b>Meetings</b>	Class	Monday, Wednesday 10:10 – 11:00am
	Room	213 Ramsey Center
<b>Textbook</b>	<u>Physiology of Sport and Exercise</u> (4 <sup>th</sup> Edition) by Wilmore, Costill & Kenney; Human Kinetics, 2008. Available at the UGA bookstore.	
<b>Evaluation</b>	7 quizzes (once every two weeks)	70%
	Final Exam	30% as stated in handbook
	Optional paper	10% (replaces lowest quiz score)
<b>Grading policy</b>	plus minus system	

If a student wishes to have an exam or quiz re-graded she/he must submit a written request which describes the nature of the problem no later than one week after the exam/quiz has been returned. The entire exam or quiz will be rechecked.

**Attendance** Attendance of lectures is optional but encouraged. Most of the testable information will come from the textbook and the lecture slides. However, some required information may only be presented in class. Attendance at all scheduled quizzes and the final is required. No make up quizzes or exams will be given unless an official UGA excuse is given (i.e., medical leave, etc.). Students are required to notify the course instructor prior to an exam or quiz in order to obtain permission to reschedule.

**WebCT** This course will make use of WebCT. Class information including the lecture and quiz schedule, lecture slides, and detailed learning objectives will be posted.

**Honors and Masters Credit**

Honors credit and Masters degree credit will not be given in this class

**(1) Course Objectives or Expected Learning Outcomes**

The goals of the class are to develop a basic understanding of exercise physiology so that the student will be able to:

- a) Describe the underlying physiological mechanisms needed to exercise.
- b) Discuss the physiological effects of acute exercise and training.
- c) Identify the key aspects of muscle fatigue and exercise induced muscle injury.
- d) Compare and contrast the key concepts of thermoregulation during exercise in warm and cold environments.
- e) Compare and contrast the key aspects of exercise in hyper- and hypobaric environments.
- f) Discuss the impact of nutrition and ergogenic aids on exercise performance.
- g) Describe the key aspects behind overtraining, deconditioning, and tapering for athletic competition.
- h) Design conditioning programs for selected populations or environmental conditions.
- i) Define physical activity and identify the impact of levels of physical activity on select health outcomes.

**(2) Topical Outline**

- I. Neuromuscular physiology
  - A. Skeletal muscle
  - B. Neurological control
  - C. Neuromuscular adaptations to training
- II. Hormonal regulation of exercise
- III. Metabolic adaptations to training
- IV. Cardiovascular control during exercise
- V. Cardiovascular adaptation to training
- VI. Environmental aspects of training
  - A. Altitude
  - B. Heat and cold
- VII. Age and sex considerations in sport and exercise
- VIII. Exercise prescription for health and fitness
- IX. Cardiovascular disease and physical activity
- X. Obesity, diabetes, and physical activity

(3) University Honor Code and Academic Honesty Policy.

All academic work must meet the standards contained in “A Culture of Honesty.” Each student is responsible to inform themselves about these standards before performing any academic work.

Copies of the honor code can be obtained from the Office of the Vice President for Instruction or may be viewed at the following web site:  
<http://www.uga.edu/honesty/>