

Physiology of Exercise - Course Syllabus

KINE 3680 003

Spring 2010
MW 1:00-2:15
4 Credit hours

Instructor: Mary Sandage, MA
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Office Hours: MW 11-12:30

Required Text: Powers, S.K. and Howley, E.T. (2009). Exercise Physiology : Theory and Application to Fitness and Performance. New York, New York: McGraw-Hill.

Course Description: Principles of physiology related to human physical activity with emphases on bioenergetics, musculoskeletal, nervous, cardiovascular, and respiratory systems and the adaptations of these systems to strength and endurance training.

Course Objectives:

Undergraduate exercise physiology students are expected to demonstrate competency in the following areas:

- 1) General understanding of bioenergetic systems and their role during specific types of exercise
- 2) General understanding of the adaptations of bioenergetic systems to specific training programs
- 3) General knowledge of various organ systems and their function during exercise, as well as adaptations to specific training programs
- 4) Ability to perform basic physiology of exercise laboratory tests
- 5) Abbreviated understanding of exercise prescriptions for the general population

Student Evaluation:

- A. Examinations: 75% of class grade
 - a. Test #1 18.75%
 - b. Test #2 18.75%
 - c. Test #3 18.75%
 - d. Test #4 18.75%
- B. Laboratory participation and reports: 20% of class grade. Students must attend lab to receive data. Students missing lab for unexcused reasons will receive a 0 for that portion of their lab grade. There will be a lab-specific syllabus provided via Blackboard.

- C. Unannounced quizzes: 5% of the class grade. Six unannounced quizzes will be given during the course of the semester. They will be graded as Pass/Fail. You may miss one without any reduction in your grade or overall class score. Quizzes may only be made up with an Auburn University approved excuse for an absence. Make-up quizzes will be different the in-class quizzes.
- D. Extra credit will not be offered.

Grading Scale:

- A: 90-100%
- B: 80-89.99%
- C: 70-79.99%
- D: 60-69.99%
- F: <60.00%

Attendance Policy: Regular attendance is highly recommended and encouraged. Excused absences from class are permitted in accordance with the Auburn University attendance policy. Excused absences are permitted for the following reasons: illness of the student or serious illness of a member of the student's immediate family, the death of a member of the student's immediate family, trips for student organizations sponsored by an academic unit, trips for University classes, trips for participation in intercollegiate athletic events, subpoena for a court appearance, and religious holidays.

Lab attendance: Lab attendance is required. Lab write-ups will not be accepted if one was not present for the day of data collection. The only exception to this is data will be provided to students that miss a lab for an excused absence.

Exam attendance: Exam dates will be announced in class at least one week in advance of the exam date. Missed exams will result in 0 points for that portion of the course grade. Excused absences on exam dates must be arranged in advance, when possible, for exam make-up scheduling. It is the student's responsibility to be aware of scheduled exams - even in the event that they miss a class where an exam is announced (for excused or unexcused reasons).

| <u>Units of Study During Lecture:</u> | <u>Textbook Chapter</u> | <u>Tentative Exam</u> |
|--|-------------------------|-----------------------|
| 1) Course introduction | Chapter 1 | |
| 2) Control of the internal environment | Chapter 2 | |
| 3) Bioenergetics | Chapter 3 | |
| 4) Exercise Metabolism | Chapter 4 | Exam 1 |
| 5) Hormonal responses to exercise | Chapter 5 | |
| 6) Measure of work, power, & energy | Chapter 6 | |
| 7) Nervous system | Chapter 7 | Exam 2 |
| 8) Skeletal muscle | Chapter 8 | |
| 9) Circulatory adaptations to exercise | Chapter 9 | Exam 3 |
| 10) Respiration during exercise | Chapter 10 | |
| 11) Acid base balance during exercise | Chapter 11 | |

- 12) Temperature regulation
- 13) Physiology of training

Chapter 12

Chapter 13

Exam 4

Exam 4 is a non-cumulative final exam scheduled according to the Auburn University exam schedule.

The instructor reserves the privilege of changing the course content as necessary.

Laboratory Schedule - Lab syllabus available on Blackboard.

Late Policy: Assigned work will be accepted late only with an Auburn University approved excuse. All other late assignments will receive a score of 0.

Academic Integrity Policy: The Auburn University student academic honesty code (Title XII) found in the Tiger Cub applies to this class. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee.

Cell Phone Policy: It is requested that cell phones be turned off during class. You will not be prohibited from answering important cell phone calls during class, but you will be required to leave class to answer a call. Further, students who choose to take cell phone calls during class time will not be permitted to return for the remainder of that class period as a courtesy to the other students.

Texting in class will not be tolerated. Students observed texting during class will be asked to leave.

Cell phones and other handheld devices may not be used or visible during exams. If you need a calculator during an exam, you must bring a "low-tech" device that is not capable of text messaging. Students choosing to have a texting device visible during an exam will receive a 0 grade for that exam.

Disability Accommodations: Students who need special accommodations in class, as provided for by the Americans with Disabilities Act, should arrange a confidential meeting with the instructor during office hours the first week of classes - or as soon as possible if accommodations are needed immediately. You must bring a copy of your Accommodation Memo and an Instructor Verification Form to the meeting. If you do not have these forms but need accommodations, make an appointment with The Program for Students with Disabilities, 1244 Haley Center, 844-2096 (V/TT) or email: SCW0005@auburn.edu.