KINE-3680
Physiology of Exercise
4 credit hours
Term: Spring 2011

Instructor: Matthew Barberio
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Office hours: M-F 9-10:45
Meeting Times:
Lecture: Tuesday & Thursday 11:00 – 12:15 COLSM 1081
Lab: Tuesday (001) & Thursday (002) 3:00 – 4:50 TigerFit Lab

Course Description:
Basic energy, musculoskeletal, nervous, cardiovascular, and respiratory systems as they relate to aerobic and anaerobic exercise. Emphasis will be placed on the adaptations of these systems to training.

Objective:
Undergraduates exercise physiology students are expected to demonstrated proficient knowledge in the following topics/areas:
1) Bioenergetics and their function during specific exercise
2) Adaptations of the bioenergetic systems to specific training programs
3) General knowledge of various organ systems and their function during exercise as well as their adaptation to specific training programs.
4) Ability to perform basic physiology of exercise laboratory tests
5) Abbreviated understanding of exercise prescriptions for the general population

Required Text:
Powers & Howley, Exercise Physiology: Theory and Application to Fitness and Performance. 2006, 7th Ed. **ISBN:** 978-0-07-337647-9

Grading Criteria
Test 1: 100 pts (20%)
Test 2: 100 pts (20%)
Test 3: 100 pts (20%)
Test 4: 100 pts (20%) (Monday, May 2 @ 12:00pm – 2:30 pm)
Lab: 100 pts (20%)
Total: 500 pts

"There is no extra credit, only credit." – **Larry Bruce Gladden**

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

Class Policies

Lecture attendance is mandatory for participation in discussion and questioning. No regularly recorded attendance will be taken. Thus, no attendance grade will be assigned for the grading criteria. **HOWEVER**, it is in your best interest to attend all lectures. Material covered in class are fair game as testing material; you are expected obtain all class notes should you choose, or be forced, to miss class.

Lab attendance is absolutely mandatory. No credit for attendance will be earned unless you attend the assigned laboratory session. If no credit is earned for attendance, no credit can be earned for assignments. Excused absence policy for exams applies here also.

Exam attendance is absolutely mandatory; dates for the exam will be announced at least 1 week prior. Failure to attend a scheduled examination will result in a 0 for that exam. Any excused absences, congruent with *TigerCub* excused absence policies, should be arranged as early as possible prior to the exam. It is the students responsibility to becomes aware of scheduled exams should they not be in attendance the day they are announced.

Academic integrity, as stated by The Auburn University student academic honesty code (Title XII) found *TigerCub*, applies to this course. Violations of this policy will be reported in accordance to the policy.

Cell phone calls during class are discouraged unless absolutely required (i.e. emergency). Please turn the cell phone to silent and leave the lecture room as needed before answering the call. Other uses of cell phones or electronic devices during lecture are prohibited. No use of phones will be allowed during examinations unless approved beforehand, use otherwise will result in a score of 0 for the test.

Disability Accommodations

Students who need special accommodations in class, as provided for by the American 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 Halley Center, 844.2096 (V/TT) or email: scw0005@auburn.edu

Topic Progression

Test 1

Course Introduction/History
Control of internal environment
Bioenergetics
Exercise metabolism

Test 2 (midterm)

Hormonal Response to exercise
Measure of work, power, and energy expenditure
Nervous system

Test 3

Skeletal Muscle
Circulator adaptations to exercise

Test 4 (final)

Respiration during exercise
Acid/Base balance during exercise
Physiology of training

Slides and figures presented in class in conjunction with the lecture will be provided to you in pdf format via blackboard. However, the notes will not be given to you.

Lab meetings

Lab meeting/topics will be determined by the material being covered. You will be notified of meeting date in class as well as material needed for the lab. The first scheduled meeting will be January 18th (001) and January 20th (002).

Material/dates/policies set forth by this syllabus are subject to change should a situation require and at the discretion of the instructor. Student will be properly notified of changes and presented with a new copy.

Prepared January 4, 2001
By: Matthew Barberio