KINE-3680-002 (Spring 2023)

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**##**Physiology of Exercise KINE 3680

Course Description

This course will focus on basic energy, musculoskeletal, nervous, and cardiovascular systems as they relate to aerobic and anaerobic exercise. Emphasis will be placed on the adaptations of these systems to training.

Course Objectives

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

1. A general knowledge of the bioenergetics systems and their functions during specific exercises
2. A general knowledge of the adaptations of the bioenergetics systems to specific training programs
3. A general knowledge of various organ systems and their functions during exercise and adaptations to specific training programs

Instructor

**Instructor:**Dr. Heidi Kluess

**Office:**283 New Kinesiology Building, 301 Wire Rd

**Phone:**844-1844, no answering service! Please do not leave a message.

**E-mail:**hak0006@auburn.edu

**Office Hours: M W 8:00-8:45 AM in person, or by appointment zoom**

Course Format

This class is taught as a flipped classroom. This means that lectures will be recorded and you can watch them outside of class. you will have at least 1 discussion question per lecture that you need to answer. several days a week during class time, we will have face-to-face discussion. Please see the class schedule at the end of the syllabus for a complete table of my plan for this semester.

**Exercise Science in the News:** This will be a group assignment. You may make your own groups or I can assign you a group. Groups should be 4 students. I will assign each group an Exercise Science in the News day throughout the semester. The group will be responsible for choosing a current article on an exercise physiology topic. It can be from a news source or a scientific journal. The pdf of the paper must be sent to my email no later than 1 week before your journal club is scheduled. During your assigned journal club, your group will be responsible for leading the class through a discussion of the paper. The class will then be responsible for posting questions on the discussion board for the responsible group to answer.

Required Text

Powers and Howley. Exercise Physiology: Theory and Application to Fitness and Performance, 2012, 9th ed.

Student Evaluations

For the lecture portion of the class:

Quizzes: variable pts ………………………………………......60 points

In class discussions.........................................................10 points

Online discussions ………………………………………………10 points

Exercise Science in the news .......................................10 points

Final Exam………………………………………………………..... 10 points

**TOTAL FOR CLASS** …………………………………………...100 points

Canvas grades are not calculated correctly. I keep an excel spreadsheet with your points. On Canvas I use 1 pt as a place marker for discussions. Your final grade for discussions will be determined at the end of class.

This syllabus serves as a contract to identify what is required for a given course grade. Each student is welcome to engage in open discussion with the instructor about matters of clarification/alteration.

A: 90 - 100 points                    D: 69.99 - 60.0 points

B: 89.99 - 80.0 points              F: < 60.00 points

C: 79.99 - 70.0 points

Policies

This class is taught as a flipped classroom, therefore, attendance in class in person on class discussion days is critical for your complete understanding of the material. ***We will have brief periods of open discussion questions (online). Your participation in a meaningful way to discussions (online and face-to-face) is required for full points in the class. For online discussions ,you may post an answer to the question or a new question about the material. The question must be related to the original prompt.*Lectures, discussion questions and quizzes are posted in the modules. It is your responsibility to keep up with this fast paced class. The schedule for each day is posted in the syllabus.**

***Quizzes on Canvas****:* You may use whatever materials that you would like to complete the quiz, but  you must complete the quiz within the time period indicated on the quiz. You may not consult with  another student while you are taking the exam. Any evidence to suggest that this may have occurred will be considered an academic honesty violation (see below).

\*\*\* Computer issues sometimes do occur, so please plan ahead and take the quiz well before the deadline for that week. Failure to take the quiz will result in a zero.

If you do have a computer failure (freezing up, etc) you must contact me IMMEDIATELY via e-mail (immediately =within 2 hrs of the deadline). On the next work day, I will reset the quiz to give you another shot. You will have 24hrs from the time I send the e-mail to complete the exam.

I appreciate that University approved excused absences do occur. Please let me know your reason within 1 class period of the absence.

Final Exam

The final exam will be given online. It will be a comprehensive exam.

Academic Integrity

The Auburn University student academic honesty code Title XII ([https://sites.auburn.edu/admin/universitypolicies/Policies/AcademicHonestyCode.pdf Links to an external site.](https://sites.auburn.edu/admin/universitypolicies/default.aspx)) 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. All quizzes must be the work of the individual. Sharing questions or answers is a violation of the academic honesty code.

Disability accomodations

Students who need accommodations are asked to arrange a meeting during office hours the first week of classes, or as soon as possible if accommodations are needed immediately. If you have a conflict with my office hours, an alternate time can be arranged. To set up this meeting, please contact me by e-mail. If you have not established accommodations through the PSD office, but need accommodations, make an appointment with The Program for Students with Disabilities, 1228 Haley Center, 844-2096 (V/TT).

Professionalism

As faculty, staff, and students interact in professional settings, they are expected to demonstrate professional behaviors as defined in the College’s conceptual framework. These professional commitments or dispositions are listed below: Engage in responsible and ethical professional practices

o Contribute to collaborative learning communities

o Demonstrate a commitment to diversity

o Model and nurture intellectual vitality

University Class Cancellation

Should the University cancel classes due to weather or other type of emergency, please see Canvas and your auburn e-mail for assignments.

Topic Schedule

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date | topic | Readings | Class meetings | watch |
| 1/11 W | BCS part 1 | Ch 2,7 | Class meets | lect 1 |
| 1/13 F | BCS part 1 |   |   |  lect 2 |
| 1/16 M | BCS part 1 |   |   |   |
| 1/18 W | BCS part 1 |   | Class meets | lect 3 |
| 1/20 F | BCS part 1 |   |   | Quiz 1 Sun 1/22 |
| 1/23 M |   |   |   |   |
| 1/25 W | Exercise science in the news 1 |   | Class meets | Post discussion comments and respond due Sun 1/29 |
| 1/27 F |   |   |   | Post discussion comments and respond due Sun 1/29 |
| 1/30 M | BCS part 2 |   | Class meets | Lect 1 |
| 2/1 W | BCS part 2 |   | Class meets | Lect 2 |
| 2/3 F | BCS part 2 |   |   | Lect 3 |
| 2/6 M | BCS part 2 |   | Class meets | Lect 4 |
| 2/8 W | BCS part 2 |   | Class meets | Lect 5, Quiz 2, Sun 2/12 |
| 2/10 F | Exercise Science in the news 2 |   | Class meets | Post discussion comments and respond due Sun 2/12 |
| 2/13 M | BCS 3 | Ch 5 | Class meets | Lect 1 |
| 2/15 W | BCS 3 |   | Class meets |  lect 2 |
| 2/17 F | BCS 3 |   |   |  lect 3 |
| 2/20 M | BCS 3 |   | Class meets | Lect 4,  Quiz 3 due Sun 2/23 |
| 2/22 W | Exercise science in the news 3 |   | Class meets | Post discussion comments and respond due Sun 2/23 |
| 2/24 F | BCS 4 | Ch 3, 4 (p80-85), 5(p111-121) | Class meets | Lect 1 |
| 2/27 M | BCS 4 |   | Class meets | Lect 2 |
| 3/1 W | BCS 4 |   | Class  meets | Lect 3 |
| 3/3 F | BCS 4 |   |   | Lect 4, Quiz 4a due Sun 3/5 |
| 3/6 M | Spring break |   |   |   |
| 3/8 W | Spring break |   |   |   |
| 3/10 F | Spring break |   |   |   |
| 3/13 M | BCS 4 | Ch 3, 4 (p80-85), 5(p111-121) | Class meets | Lect 5 |
| 3/15 W | BCS 4 |   | Class meets | Lect 6 |
| 3/17 F | BCS 4 |   |   | Lect 7, Quiz 4b due Sun 3/19 |
| 3/20 M | Exercise science news 4 |   | Class meets | Post discussion comments and respond due T 3/21 |
| 3/22 W | VO2max part 5 | Ch 9, ch 13 (p285-287), Ch 12 | Class meets | Lect 1 |
| 3/24 F | VO2max part 5 |   |   | Lect 2 |
| 3/27 M | VO2max part 5 |   | Class meets | Lect 3 |
| 3/29 W | VO2max part 5 |   | Class meets | Lect 4 |
| 3/31 F | VO2max part 5 |   |   | Lect 5 |
| 4/3 M | VO2max part 5 |   | Class meets | Lect 5 |
| 4/5 W | VO2max part 5 |   | Class meets | Lect 6 |
| 4/7 F | VO2max part 5 |   |   | Quiz 5 due Sun 4/9 |
| 4/10 M | Exercise Science news 5 |   | Class meets | Post discussion comments and respond due Tues 4/11 |
| 4/12 W | The muscle part 6 | Ch 8, ch 13 (p282-284, 287-297), Ch 1 (p16-20, 23-37), Ch 19 | Class meets | Lect 1 |
| 4/14 F | The muscle part 6 |   |   | Lect 2 |
| 4/17 M | The muscle part 6 |   | Class meets | Lect 2 |
| 4/19 W | The muscle part 6 |   | Class meets | Lect 3 |
| 4/21 F | The muscle part 6 |   |   | Lect 4 |
| 4/24 M | The muscle part 6 |   | Class meets | Lect 5 |
| 4/26 W | The muscle part 6 |   | Class meets | Lect 6, Quiz 6 due F 4/28 |
| 4/28 F | The muscle part 6 |   | Class meets | Discuss final exam |
| 5/3 Wed | Final exam due 10AM |   |   |   |

Extra Credit

You may earn a maximum of 5 points of extra credit in this class by participating in College of Education studies (points are variable depending on the type of study: online=0.5 pts, lab studies=0.5 pts per hour of participation) or  attending a physiology related seminar (0.5pts if you write at least 2 paragraphs about the talk).  For the study or seminar YOU must send me an email detailing what you did. The deadline for turning in extra credit is before you submit the final exam in this class.

[To get to the SONA login, use this Link](https://auburn-education.sona-systems.com/)