**KINE 3680-004: Physiology of Exercise**

 **Course Syllabus**

**Spring 2025**

**Instructor**: Madison Mattingly, M.S.

**Office**: 138 School of Kinesiology **Prerequisites**: None

**Office hours**: TR 11:00 am – 12:00 pm\*\* **Class schedule**: MWF 11:00 – 11:50 am

**E-mail**: mlm0139@auburn.edu **Class Location:** Student Activities Center 241

**\*\*\*Please email me to schedule an appointment that fits your schedule, if needed. Also, please allow 24 – 36 hours for me to respond to your email. I may not respond to emails after 4:45p or before 7:45a\*\*\***

**Course Description**

This course will focus on the physiological, anatomical, biochemical, and molecular aspects of exercise physiology and their respective adaptation to various modes of exercise.

**Course Objectives**

The specific objectives of this class for the student are as follows:

* Establish a foundational understanding of the physiological adaptations that occur in response to different modes (i.e., aerobic, anaerobic) of exercise.
* Establish a foundational understanding of the anatomical and biomechanical aspects of exercise physiology.
* Understand the basic concepts of the physiological aspects of skeletal muscle, respiratory, and cardiovascular responses to exercise.
* Understand the basic concepts of bioenergetics, skeletal muscle, respiratory and cardiovascular physiology in response to exercise.

Textbooks: “Required” text:

Powers, S.K, Howley, E. T., & Quindry, J. (2015, 2017, 2019). *Exercise Physiology: Theory and Application to Fitness and Performance*. (9th, 10th, 11th Ed.) New York, NY: McGraw-Hill Humanities

**Best Preparation:** Print off class notes from Canvas prior to coming to class and come to class.

**Student Learning Outcomes**

(a) Demonstrate knowledge of the concepts and applications of exercise physiology with respect to each physiological system.

(b) Demonstrate knowledge of the basic concepts of physiological adaptations to exercise.

(c) Demonstrate knowledge of the foundational concepts of exercise physiology.

**Grading Scale**

|  |  |  |
| --- | --- | --- |
| **Letter Grade** | **Point Range** | **Percent Scale** |
| A | 360 - 400 | 90-100 |
| B | 320 - 359 | 80-89 |
| C | 280 - 319 | 70-79 |
| D | 240 - 279 | 60-69 |
| F | < 240 | <60 |

**Semester Grading Rubric:**

|  |  |  |
| --- | --- | --- |
| **Assignments** | **Description** | **Points/ % of final grade** |
| **Exams** | **(3) Examinations over lecture material****\*100 points per exam** | **300/ 75%** |
| **Quizzes** | **(4) Canvas quizzes****\*25 points per quiz** | **100/ 25%** |
| **Total**  | **-** | **400/100%** |

**Class Policies**

Please refer to the Student Policy eHandbook (www.auburn.edu/studentpolicies) for the definition of excused absences. Attendance is not mandatory but is expected and appreciated as such; class attendance will not directly impact on your course grade. Students will be expected, should they choose to be absent for any excused or unexcused reasons, to obtain all the information necessary for successful completion of this course. Exams can be re-scheduled for any excused absence, but unexcused absences will result in a zero for the missed assignment.

**Exam Attendance**

Exam dates will be announced in class at least one week prior to the scheduled exam date. Missed exams will result in 0 points for that portion of the course grade, with no exceptions. Excused absences on exam dates must be arranged prior to the start of the exam for makeup consideration. Students who do not contact me in advance of their missed exam will not be allowed to take the exam at a later date. The student is responsible for being aware of scheduled exams even in the event that a student misses a class where an exam is announced for excused or unexcused reasons.

**Bonus Point Opportunities**

Bonus point opportunities will be made available to all students at the discretion of the professor. This may include Canvas surveys, AuEvaluate class evaluations, etc.

**Cell Phone Policy**

Cell phones must be turned off or on silent mode during class and not present from view. You will not be prohibited from answering cell phone calls during class time, though you will be required to leave class to answer a call. 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.

**Accommodations**

Students who need accommodations are asked to electronically submit their approved accommodations through AU Access and 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 Office of Accessibility, but need accommodations, make an appointment with the Office of Accessibility, 1228 Haley Center, 334-844-2096 (V/TT).

**Academic Honesty and Conduct**

Students are expected to do their work and cheating will not be tolerated. All portions of the Academic

Honesty code on <https://www.auburn.edu/academic/provost/academic-honesty/> & <https://sites.auburn.edu/admin/universitypolicies/Policies/AcademicHonestyCode.pdf> apply.

**Inclusive Excellence**

Auburn University is committed to providing a working and academic environment free from discrimination and harassment and to fostering a nurturing and vibrant community founded upon the fundamental dignity and worth of ALL its members.

**Professionalism**

As faculty, staff, and students interact in educational settings, they are expected to demonstrate professional behaviors as defined in the College of Education’s conceptual framework. These professional commitments are as follows: 1) engage in responsible and ethical practices, 2) contribute to collaborative learning communities, 3) demonstrate a commitment to diversity, and 4) model and nurture intellectual vitality.

**Contingency Plan**

If the normal schedule is disrupted, the syllabus and other course plans may be modified to allow for the completion of the course and to benefit the student and their learning experience. Your instructor is aware that things may arise and affect the course of work as a class; in that case, your instructor will provide an addendum to your current syllabus with revised course assignments which will then replace this syllabus and all its content. A new syllabus (Syllabus B) will be employed at that time.

***NOTE: The instructor/professor reserves the right to modify the syllabus in order to benefit the student by enhancing the learning experience and cultivating a more academic engaging environment.***

***\*\*\*TENTATIVE CLASS SCHEDULE\*\*\****

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| --- | --- | --- |
| **Date** | **Topic Covered** | **Assignment** |
| **01/13, Monday** | **Introduction and Syllabus** |  |
| 01/15, Wednesday01/17, Friday | Nervous System | Topic 1 |
| 01/20, Monday | **M.L.K Jr. Day** | **NO CLASS** |
| 01/22, Wednesday01/24, Friday | Nervous System | Topic 1 |
| 01/27, Monday01/29, Wednesday01/31, Friday02/03, Monday02/05, Wednesday | Skeletal Muscle | **Topic 2** |
| 02/07, Friday | **EXAM 1 (Topics 1 & 2)** |  |
| 02/10, Monday02/12, Wednesday 02/14, Friday02/17, Monday02/19, Wednesday | Bioenergetics  | **Topic 3** |
| 02/21, Friday02/24, Monday02/26, Wednesday02/28, Friday03/03, Monday | Exercise Metabolism | Topic 4 |
| 03/05, Wednesday | **EXAM 2 (Topics 3 & 4)** |  |
| 03/07, Friday | **MENTAL HEALTH DAY** | **NO CLASS** |
| 03/10, Monday03/12, Wednesday03/14, Friday | **SPRING BREAK** | **NO CLASS** |
| 03/24, Monday03/26, Wednesday03/28, Friday03/31, Monday | Cardiovascular | Topic 5 |
| 04/02, Wednesday04/04, Friday04/07, Monday04/09, Wednesday | Pulmonary | Topic 6 |
| 04/11, Friday04/14, Monday04/16, Wednesday04/18, Friday | Physiology of Endurance Training | Topic 7 |
| 04/21, Monday04/23, Wednesday04/25, Friday | Physiology of Resistance Training | Topic 8 |
| 04/28, Monday | Exam 3 Review |  |
| 04/30, Wednesday | Study Day/Quiz Completion Day | **NO CLASS** |
| 05/02, Friday | **EXAM 3 (Topics 7 & 8) – Option 1** | 11:00 – 11:50a |
| 05/08, Thursday | **EXAM 3 (Topics 7 & 8) – Option 2** | 10:30 – 12:30p |