

**PHYSIOLOGY OF EXERCISE LABORATORY**  
**KINE 3112**  
**Fall Semester, 2009**  
**Section 001: Mon 1:00 – 2:50 p.m.**  
**Section 002: Wed 1:00 – 2:50 p.m.**  
**Section 003: Thurs 1:00 – 2:50 p.m.**  
**HPC 2185**

---

**Instructor:** Reuben J. Cowan

**Office:** HPC 3066-1  
Phone (903)216-7104; Email: [rcowan@patriots.utt Tyler.edu](mailto:rcowan@patriots.utt Tyler.edu)

**Office hours:** TR 3:00 – 5:00 p.m., or by appointment

---

**COURSE DESCRIPTION:** Laboratory assessment of responses to acute and chronic exercise.

**PREREQUISITE:** Credit in Anatomy and Physiology, or consent of the instructor.

**COREQUISITE:** KINE 3311

**REQUIRED TEXT:** Adams, G.M. and W.C. Beam (2007). Exercise Physiology Laboratory Manual: 5<sup>th</sup> Edition. McGraw-Hill, ISBN: 9780072972931.

**COURSE OBJECTIVES:** To learn the basic concepts of exercise physiology, including normal and abnormal responses to acute and chronic exercise of various types. Specific goals include (a) reinforcing basic exercise physiology concepts, (b) increasing awareness of exercise physiology laboratory measurements, and (c) practicing collection, evaluation, and presentation of data.

**EVALUATION:**

Assignments/Lab Reports (6 reports x 20 pts/ea)	120 pts
Quizzes (6 quizzes x 5 pts/ea)	30 pts
Group Project: Article Summary	30 pts
Group Project: Experimental Design	20 pts
Group Project: Presentation	100 pts

---

Total 300 pts

Assignments/Lab Reports: Assignments will consist of answering questions for each lab. The lab reports **must be typed** and the questions must be answered thoroughly. Your lab reports **MUST** have (a) a cover sheet with your name, KINE 3112, the name of the particular lab, and your lab section time typed on it; (b) answers to the lab questions provided by the instructor (include both questions and answers). All homework must be turned in to the Digital Dropbox on Blackboard before the beginning of the next lab. **Any late work will not be accepted.** Lab reports that are un-typed or missing a cover sheet will incur a 20% penalty. The instructor(s) will check notebooks for calculations and data collection in the lab. **DO NOT TURN IN THE READING MATERIAL WITH YOUR LAB REPORT.**

Quizzes: Short quizzes will be given on Blackboard for each lab activity. These quizzes are designed to test your understanding of the rationale, purpose, and procedures employed in the lab activity.

Group Research Project: All students will be assigned to a group in order to complete a group research project. Each group will determine a problem to be studied during the semester. The group will complete a literature search and review, design a series of experiments to investigate the problem, analyze collected data, and report their findings in a class presentation. The results will be presented as either a poster or a slide presentation at the end of the semester in a KINE 3112 research conference. More details will be provided in the next couple of weeks.

**COURSE POLICIES AND EXPECTATIONS:** The following course policies will be strictly adhered to, without exception:

1. Attendance and participation in all laboratories is an absolute requirement of this course. Any work missed due to an unexcused absence **may not be made up**. The only exception to this policy is written documentation of a situation (University-approved absence or medical emergency) that *absolutely* prohibits you from attending class. You must contact the instructor as soon as you know that you will be absent from class.
2. Deadlines for all lab assignments are shown on the class schedule. Any work handed in late will receive a zero. I **will not** answer questions regarding lab assignments on the day that the labs are due. Don't wait until the last minute to complete the lab assignments!
3. The work that you hand in is expected to be original and to be your own. **Any** act of cheating or plagiarism will result in dismissal from the course, and further discipline by the university.
4. It is expected that each student is proficient in the use of Microsoft Office (Word, PowerPoint, Excel) or Apple iWork (Pages, Keynote, Numbers). You will be required to use these applications extensively in this class. If you do not know how to use these applications, seek help from Computer Services or similar assistance.
5. Please turn all cell phones off or to silent during class. Phone calls are not to be taken during class unless you are expecting an emergency call.

**PLAGIARISM/FRAUD:**

As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism

if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. This includes, but is not limited to, working on lab reports with another student and changing the names on the printed report, copying data from another student for a lab that you did not attend, and forging data from a lab you did not attend.

The work that you hand in is expected to be original and to be your own. There is *no tolerance* for persons who plagiarize and/or cheat. You are expected to consult Subchapter 8-800 of the University of Texas at Tyler Manual of Policies and Procedures for Student Affairs: Student Conduct and Discipline available at [www.uttyler.edu/mopp/chapter8.html](http://www.uttyler.edu/mopp/chapter8.html). Any act of cheating or plagiarism will result in dismissal from the course. Per university guidelines, the student(s) will be reported to the department head with failure of the course as the recommended course of action.

**AMERICANS WITH DISABILITIES ACT (ADA):**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination law that provides comprehensive civil rights protection to individuals with disabilities. Among other things, this statute requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability, including a learning disability, requiring an accommodation, please contact Ida MacDonald in the Disability Support Services office so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodation must provide documentation of his/her disability to the Disability Support Services counselor. For more information, call or visit the Student Services Center located in the University Center, Room 111. The telephone number is 566-7079 (TDD 565-5579).

**COPYRIGHT:**

The handouts used in this course are copyrighted. The term "handouts" refers to all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless I expressly grant permission.

## ***TENTATIVE COURSE OUTLINE***

<b>Week #</b>	<b>Week of:</b>	<b>LAB ACTIVITY</b>
1	8/31	Lab introduction; Units of measure and data collection
2	9/7	Ergometry: Measurement of Work and Power
3	9/14	Measurement of Anaerobic Power and Capacity
4	9/21	Energy Expenditure During Exercise
5	9/28	Estimation of Maximal Aerobic Capacity (VO <sub>2</sub> max) <b>Group Project: Topics</b>
6	10/5	Metabolic Response to Exercise <b>Group Project: Experimental Design</b>
7	10/12	Resting and Exercise Blood Pressure <b>Group Project: Article Summary Due</b>
8	10/19	Measurement of Body Composition <b>Group Project: Experimental Design due</b>
9	10/26	Group project: Data Collection
10	11/2	Group project: Data Collection
11	11/9	Group project: Data Collection
12	11/16	Group project: Data Collection
13	11/23	Thanksgiving Break
14	11/30	<b>Group project: Final research abstracts due</b>
15	12/7	<b>Group project: Presentations</b>
16	12/14	<b>Finals Week</b>