

**THE UNIVERSITY OF TEXAS AT TYLER**  
**DEPARTMENT OF HEALTH AND KINESIOLOGY**

**Course Syllabus – Spring 2009**

**GENERAL INFORMATION ABOUT COURSE**

Course Title, Number & Credit Hours: KINE 3112 Physiology of Exercise Lab (1 semester credit hour); Sections 3 and 4

Prerequisite: Credit in anatomy and physiology course or consent of instructor.

Corequisite: KINE 3311 Physiology of Exercise

Location of Classroom: HPC 2185

Day and Hours the Class Meets: Section 3 on Friday, 9:30-11:30; Section 4 on Friday, 12:30-2:30 p.m.

**INFORMATION ABOUT INSTRUCTORS**

**Instructor of Record**

Name & Title: James A. Schwane, Ph.D., Professor, Department of Health and Kinesiology

Office Location and Phone Number: HPC 3105; 903-566-7306

FAX: 903-566-7065

e-mail: [jschwane@uttyler.edu](mailto:jschwane@uttyler.edu)

Office Hours: Tuesdays, 9:00-11:00 a.m., & Thursdays, 1:30-3:30 p.m. For appointment outside of regular office hours, please contact Gail Goetz, Administrative Assistant, Department of Health and Kinesiology (903-566-7031; [ggoetz@uttyler.edu](mailto:ggoetz@uttyler.edu)).

Emergency Phone Numbers: Messages may be left on Instructor's voice mail at 903-566-7306.

Or phone the Department Administrative Assistant, Gail Goetz, at 903-566-7031. Instructor's home phone: 903-839-2040—Please use home phone for only extraordinary situations.

**Graduate Assistant**

Reuben Cowan

**TEXTS, READINGS, MATERIALS**

Required Text: Wilmore, Costill and Kenney, Physiology of Sport and Exercise (Human Kinetics, 4<sup>th</sup> Edition, 2008—ISBN-10: 0-7360-5583-5; ISBN-13: 978-0-7360-5583-3).

NOTE: This text is primarily for the lecture section of this course (KINE 3311), but it will serve as a reference for selected lab activities.

Various readings may be assigned on handout, library or Web-based materials. Each student must have a reliable calculator that performs basic math functions. Also, each student must have a bound notebook specifically for use as a log of lab activities.

## **COURSE DESCRIPTION/GOALS**

Course Description: Laboratory assessment of responses to acute and chronic exercise.

Instructional Methods: Problem-solving, data collection and analysis, report-writing, demonstrations, lectures, question-and-answer, class and small-group discussions, readings.

Course Goal:

The goal of the corequisite course KINE 3311 is that the student learn the basic concepts of exercise physiology (exercise physiology is the study of how the body functions in response to exercise), including normal and abnormal responses of variables to acute and chronic exercise of various types. The general goal of KINE 3112 is to complement KINE 3311 by (a) reinforcing basic exercise physiology concepts, (b) increasing awareness of exercise physiology laboratory measurements, (c) developing selected laboratory skills and (d) practicing collection, evaluation and reporting of data.

Specific Learning Outcomes:

The student who successfully completes this course will:

1. have selected laboratory skills, including measurement of heart rate and blood pressure during exercise of various types;
2. be able to apply exercise physiology concepts to real-world examples;
3. be able to explain fitness test procedures and results of fitness tests in relation to norms;  
and
4. be able to describe the research process as related to problems in exercise physiology.

## COURSE CALENDAR and TENTATIVE SCHEDULE

Week # – Date(s)	Topics
1 – Jan. 16	Introduction to course Introductory concepts
2 – Jan. 23	Ergometers, work output, power output
3 – Jan. 30	ECG: recording and monitoring during exercise; determination of heart rate
4 – Feb. 6	Measurement of blood pressure at rest and during exercise
5 – Feb. 13	Measurement of VO <sub>2</sub> , VCO <sub>2</sub> and R
6 – Feb. 20	Maximal aerobic and anaerobic power
<b>7 – Feb. 27</b>	<b>Annual Meeting of Texas Chapter of the American College of Sports Medicine (TACSM)</b>
8 – Mar. 6	Estimation of VO <sub>2</sub> and VO <sub>2</sub> max
<b>Mar. 9-13</b>	<b>SPRING BREAK</b>
9 – Mar. 20	Assessment of body composition and other fitness variables <b>*See Note below.</b>
10 – Mar. 27	VO <sub>2</sub> -HR and VO <sub>2</sub> -BP relationship under different conditions
11 – Apr. 3	Physiological responses to “concentric exercise” and “eccentric exercise”
12 – Apr. 10	TBA
13 – Apr. 17	TBA
14 – Apr. 24	TBA
15 – May 1	Group research project presentations
16 – May 8	FINAL EXAM (Date and time TBA, following official University schedule of final exams.)

\*NOTE: March 25 is last day to withdraw from class with automatic grade of W. (Disclaimer: My alerting to this date in this syllabus does not mean this is necessarily UT Tyler's official withdrawal date. You should check UT Tyler's official calendar to verify this date.)

## COURSE POLICIES

### Attendance and Make-up Policy:

Some of the grade in the course is based on participation in lab activities. Therefore, failure to attend lab sessions will directly and adversely affect this portion of the grade. In addition, a major aspect of a lab course is learning via observation and hands-on participation in activities. Absences, of course, will adversely affect this part of instruction and learning in this course. In short, then, attendance is very important to success in this class.

Making up work missed because of absence from regular lab sessions will be allowed only according to University policy regarding attendance and valid excuses for nonattendance.

### Grading:

Your grade for the course will be determined as follows.

	<b><u>POINTS</u></b>
Participation in lab activities <sup>a</sup>	200
Lab Notebook <sup>b</sup>	100
Demonstration of skills <sup>c</sup>	200
Group Project – Class Fitness Profile <sup>d</sup>	100
Group Project – Research Project <sup>e</sup>	200
Final Exam (Comprehensive)	200
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<b>Total</b>	<b>1,000</b>

<sup>a</sup>You will be graded for level of participation in every lab period, using the following 4-point scale.

0 = did not attend so did not participate;

1 point each for (a) attending class, (b) being attentive during class, (c) actively participating in class

At the end of the course, all participation scores will be averaged and converted to a percent score based on total number of lab sessions; then this score will be used to determine points out of 200 possible for participation.

<sup>b</sup>You must keep a notebook of all lab activities associated with this class that you are involved in (e.g., scheduled class sessions, testing done at times other than scheduled class times). This notebook must be a hand-written log of activities kept in chronological order in a bound notebook with no missing pages. This log must

minimally include the date of the activity or set of activities (e.g., date of class lab); a title and brief summary description of the activities; a detailed list of specific activities; names of group members when pertinent; data collected, if any, unless the data are recorded on specific data recording forms or via an electronic system; student's subjective observations or comments related to the activities. Notebooks will be collected and graded periodically throughout the semester (e.g., at the end of weekly class sessions) according to the following scale.

0 points = Notebook not submitted or submitted with no entry for the time period involved.

5-10 points for completeness and quality of the entry for the time period involved.

At the end of the course, the periodic grades for the notebook will be averaged and converted to a percent based on the number of grades; then this score will be used to determine points out of 100 possible for this part of the course.

<sup>c</sup>Your proficiency in demonstrating the following skills (demonstrated on human subjects) will be tested.

1. blood pressure measurement by auscultation at rest
2. blood pressure measurement by auscultation during exercise
3. measurement of heart rate by electrocardiography (including skin preparation and electrode placement, connecting to electrocardiograph, and computing heart rate from an ECG recording)
4. operation of bicycle ergometers: Monark mechanically braked bicycle ergometers, Lode electronic bicycle ergometer
5. operation of motorized treadmills
6. skinfold measurements

Opportunities will be given throughout the semester for the student to demonstrate skills. Skill proficiency will be graded on the following scale.

0 = Not proficient (or proficiency not determined)

1 = Borderline level of proficiency

2 = Acceptable level of proficiency, but more practice needed

3 = High level of proficiency

4 = Excellent level of proficiency

Scores on all skills tests will be averaged and converted to a percent score based on the six total required skills; then this score will be used to determine points out of 200 possible for demonstration of skills.

<sup>d</sup> By the end of the semester, a class profile will be developed in terms of selected fitness variables, listed below.

- VO<sub>2</sub>max (either measured or estimated)
- Maximal anaerobic power (Wingate Test)
- Percent body fat
- Sit-and-reach test flexibility
- Muscle endurance (YMCA Bench Press Test)
- Handgrip strength

Unless an exception is approved by the instructor, each student is expected to be a subject for this project. This project will provide opportunities to practice testing skills, provide data for each student to evaluate his/her own level of fitness, and provide practice at developing norms for a population. Your grade for this project will be based on your completion of the fitness tests as a subject.

<sup>e</sup> Each student is expected to complete a group “research project.” This will involve working with a small group of students to (a) identify a testable hypothesis related to a problem in exercise physiology, (b) test subjects to collect data related to testing the hypothesis, (c) analyze the data to determine whether the data support or fail to support the hypothesis, and (d) prepare a written report and Power Point presentation summarizing the study. More details about this project’s requirements will be presented in a handout, as well as orally throughout the semester.

### **Selected University Policies and Procedures**

(Taken from the University's *Handbook of Operating Procedures* and the UT Tyler Web Site)

#### **Students Rights and Responsibilities**

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link:

<http://www.uttyler.edu/wellness/StudentRightsandResponsibilities.html>

#### **Grade Replacement/Forgiveness**

If you are repeating this course for a grade replacement, you must file an intent to receive grade forgiveness with the registrar by the 12th day of class. Failure to do so will result in both the original and repeated grade being used to calculate your overall grade point average.

Undergraduates will receive grade forgiveness (grade replacement) for only three course repeats; graduates, for two course repeats during his/her career at UT Tyler.

#### **State-Mandated Course Drop Policy**

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the 12th day of class (See Schedule of

Classes for the specific date). Exceptions to the 6-drop rule include, but are not limited to, the following: totally withdrawing from the university; being administratively dropped from a course; dropping a course for a personal emergency; dropping a course for documented change of work schedule; or dropping a course for active duty service with the U.S. armed forces or Texas National Guard. Petitions for exemptions must be submitted to the Registrar's Office and must be accompanied by documentation of the extenuating circumstance. Please contact the Registrar's Office if you have any questions.

### **Disability Services**

In accordance with federal law, a student requesting accommodation must provide documentation of his/her disability to the Disability Support Services counselor. If you have a disability, including a learning disability, for which you request an accommodation, please contact Ida MacDonald in the Disability Support Services office in UC 282, or call (903) 566-7079.

### **Student Absence due to Religious Observance**

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

### **Student Absence for University-Sponsored Events and Activities**

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

### **Social Security and FERPA Statement:**

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

### **Academic Dishonesty**

At The University of Texas at Tyler students and faculty are responsible for maintaining an environment that encourages academic integrity. Students and faculty members are required to report an observed or suspected case of academic dishonesty immediately to the faculty member in charge of an examination, classroom or laboratory research project, or other academic exercise.

Since the value of an academic degree depends on the absolute integrity of the work done by the student for the degree, it is imperative that a student maintain a high standard of individual honor in scholastic work. Scholastic dishonesty includes but is not limited to cheating, plagiarism, and collusion:

"*Cheating*" includes:

1. Copying from the paper of another student, engaging in written, oral or any other means of communication with another student, or giving aid to or seeking aid from another student when not permitted by the instructor;
2. Using material during an examination or when completing an assignment that is not authorized by the person giving the examination or making the work assignment;
3. Taking or attempting to take an examination for another student, or allowing another student to take an examination for oneself;
4. Using, obtaining, or attempting to obtain by any means, the whole or any part of, an unadministered examination or work assignment.

*"Plagiarism"* includes the unacknowledged incorporation of the work of another person in work that a student offers for credit.

*"Collusion"* includes the unauthorized collaboration with another person in preparing written work that a student offers for credit.

### **Food and Drink in the Classrooms**

Consumption of food and drink in university classrooms is prohibited.