

# COURSE SYLLABUS

## PHYSIOLOGY OF EXERCISE

KINE 3311.001

Fall Semester 2008, TR 11:00 – 12:15, HPC 2255

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**Instructor:** Dr. Scott A. Spier

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**Office hours:** TR 9:00 – 11:00, or by appointment (Drop-ins welcome)

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**COURSE DESCRIPTION:** Study of functional responses to acute and chronic exercise.

**REQUIRED TEXT:** Wilmore, Jack H., David L. Costill, and W. Larry Kenney. Physiology of Sport and Exercise, 4<sup>th</sup> edition, Human Kinetics, 2008.

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

**COREQUISITE:** KINE 3112

**COURSE OBJECTIVES:** In general, students who complete this course will be able to:

1. apply kinesiological principles to assessment of physical fitness.
2. apply kinesiological principles to promotion of physical fitness.
3. explain the relationships among regular physical activity, physical fitness, and wellness.

More specifically, students who complete this course will be able to:

1. explain the anatomical and physiological bases of physical conditioning.
2. summarize how the body physiologically reacts to a single (acute) bout of exercise.
3. explain how the body adapts physiologically to chronic bouts of exercise.
4. discuss the physiological bases for establishing training programs for the development of strength, power, muscular endurance, and cardiovascular endurance.
5. describe how heat, humidity, cold, and altitude affect athletic performance.
6. explain the role of supplements, drugs, oxygen, blood doping, and other proposed ergogenic aids in facilitating the performance of the elite athlete.

**INSTRUCTIONAL METHODS:** Textbook readings, short lectures, question-answer, classroom, small group discussions, and small group problem solving. Students are expected to have read the assigned reading prior to class. The instructor will not cover basic material, but will instead focus on the more difficult concepts in the assigned reading.

**EVALUATION:**

<u>Option 1</u>		<u>Option 2</u>	
Exams 1-3	60%	Exams 1-3	30%
Final Exam*	0%	Final Exam	30%
Quizzes	10%	Quizzes	10%
Class work	5%	Class work	5%
Lab grades	25%	Lab grades	25%

\*You must have a "B" average to skip the final exam.

Exams: Exams will consist of mostly *multiple choice* questions, but may also include *short answer* (one-word answers), *short essay* (one to three paragraphs), and/or *diagrams*. The final exam will be held during the scheduled final examination period and will primarily focus on the material covered in the final set of class meetings, i.e., lectures presented after the 3<sup>rd</sup> exam. However, comprehensive questions over important material covered prior to the 3<sup>rd</sup> exam will also be included as part of the final exam.

Quizzes: There will be several unannounced quizzes given throughout the semester. These quizzes are intended to test the student over the reading material and the previous lecture. The quizzes will be short and will test only the basic concepts and definitions. The three lowest quiz scores will be dropped. Any missed quizzes will be counted as zero; there will be no make-ups for quizzes.

Class work: Occasionally, I will assign in-class group problem-solving or discussions. More information regarding these assignments will be given as the semester progresses.

Lab grades: The lab (KINE 3112) is a co-requisite of the lecture (KINE 3311). Grades from the lab will count 25% of your total grade for this course. Details about lab assignments are given in the lab syllabus.

Make-up work: Make-up exams will be given only for university-approved absences. Since university-approved absences are known at the beginning of the semester, it is up to the student to notify the instructor during the first two weeks of class if there is a conflict with any of the scheduled exams. In such an event, a make-up exam will be given prior to the exam to be missed. If a situation arises that prevents you from sitting for an exam, that exam will be considered your dropped exam. *Do not miss more than one exam and do not miss the final exam.*

Preparation and Participation: Students are strongly encouraged to ask, and respond to, questions in class; vigorous interaction in the class makes for much more interesting sessions for both instructor and students.

Extra Credit: There will be no extra credit points given in this class. It is not fair to the class as a whole to presume the instructor will give individuals opportunities to obtain extra credit points. Please do not ask for extra credit opportunities.

Grading will be based on a modified 10-point scale (average): A = 89.5 - 100; B = 79.5 - 89.4; C = 69.5 - 79.4; D = 59.5 - 69.4; F = below 59.5

### **SUGGESTIONS FOR STUDY:**

Students should expect this to be a moderately difficult class, especially if students have not met the Anatomy and Physiology prerequisite. However, the following steps will help the student master the material presented in this class:

1. Do the assigned reading before class. Be able to intelligently discuss the material in the chapter.
2. Identify concepts and information that are unclear and inquire about this in class.
3. If material is still unclear, ask one of your peers for insight, or make an appointment with the instructor for assistance (Drop-ins are welcome except right before class).
4. Devote a minimum of 2 hours per week to review materials covered during each week of class; do not expect to do well if you cannot commit to this level of effort.

### **LECTURE NOTES:**

Occasionally, I will provide lecture note handouts for the class; however, the student is responsible for all information that is discussed in class (regardless of whether it is in the lecture handout or not), as well as information in the textbook. Any lecture handouts provided by the instructor will be available on Blackboard. It is the responsibility of the student to check the KINE 3211 Blackboard page and to print out the notes prior to class.

### **CHEATING:**

There is no tolerance for persons who plagiarize and/or cheat. 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 class 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, for which you request disability support services/accommodation(s), 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 disability support services/accommodation(s) must provide appropriate 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 282. The telephone number is 566-7079 (TDD 565-5579)." Additional information may also be obtained at the following UT Tyler Web address: <http://www.uttyler.edu/disabilityservices>.

**GRADE REPLACEMENT:**

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 file an intent to use grade forgiveness will result in both the original and repeated grade being used to calculate your overall grape point average. A student will receive grade forgiveness (grade replacement) for only three (undergraduate student) or two (graduate student) course repeats during his/her career at UT Tyler. (2006-08 Catalog, p. 35)

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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 Schedule*

<b>Week #</b>	<b>Week of:</b>	<b>Tuesday</b>	<b>Thursday</b>
1	8/25	-----	Introduction to Course (Syllabus)
2	9/1	Bioenergetics/Metabolism (Ch. 2)	Metabolism (Ch. 2)
3	9/8	Exercise Metabolism/Endocrinology (Ch. 2)	Energy Expenditure/Fatigue (Ch. 4)
4	9/16	Skeletal Muscle (Ch. 1)	Neural Control of Muscle (Ch. 3)
5	9/23	<b>Exam 1</b>	Cardiovascular System (Ch. 5)
6	9/30	Cardiovascular System (Ch. 5)	Cardiovascular System (Ch. 5)
7	10/6	Respiratory System (Ch. 6)	Cardiorespiratory Responses to Exercise (Ch. 7)
8	10/13	Cardiorespiratory Responses to Exercise (Ch. 7)	<b>Exam 2</b>
9	10/20	Principles of Training (Ch. 8) Training for Sport (Ch. 13)	Adaptations to Resistance Training (Ch. 9)
10	10/27	Adaptations to Aerobic Training (Ch. 10)	Environmental Exercise Physiology (Ch. 11)
		<b>10/31/08 - LAST DAY TO WITHDRAW FROM COURSE WITH AUTOMATIC "W"</b>	
11	11/3	Environmental Exercise Physiology (Ch. 12)	Ergogenic Aids (Ch. 13)
12	11/10	Ergogenic Aids (Ch. 13)	<b>Exam 3</b>
13	11/17	Age Considerations in Sport and Exercise (Ch. 16)	Age Considerations in Sport and Exercise (Ch. 17)
14	11/24	Sex Differences in Sport and Exercise (Ch. 18)	<b>THANKSGIVING HOLIDAY</b>
15	12/1	Cardiovascular Disease (Ch. 20)	Cardiovascular Disease (Ch. 20)
16	12/8	Obesity (Ch. 21)	Obesity (Ch. 21)
17	12/15	<b>FINAL EXAM</b> (Tuesday, Dec 16, 11:00 - 1:00)	

