

# KINE 3112 PHYSIOLOGY OF EXERCISE LABORATORY

Department of Kinesiology  
The University of Texas at Tyler

## Course Syllabus

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**Course:** KINE 3112 - Physiology of Exercise Lab

**Meets:** Section 001: Tu 2:00 p.m. -4:00 p.m. in HPC 2185  
Section 002: W 10:00 a.m. -12:00 p.m. in HPC 2185  
Section 003: W 2:00 p.m. -4:00 p.m. in HPC 2185

**Instructor:** Scott Spier, Ph.D. (last name rhymes with *fire*)

**Office:** Herrington Patriot Center (HPC) 2186 (Inside the Exercise Physiology Lab)  
Office phone: (903) 566-7427  
Email: [sspier@uttyler.edu](mailto:sspier@uttyler.edu) (do NOT include “*patriots*” in email address)  
*\*Probably best to email me through Canvas, if it relates to the course*

**Office hours:** Tu/Wed/Th 12:30 - 2:00 p.m.; Also by appointment or via Zoom (call or email to schedule)

**Website:** All course materials, lectures, and assignments will be provided in **Canvas**

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## ABOUT THIS COURSE

The goal of this course is to complement KINE 3311 by (a) reinforcing basic exercise physiology concepts via application, (b) increasing awareness of laboratory tests and measurements commonly used in exercise physiology studies of humans, (c) developing selected laboratory skills, and (d) practicing collection, evaluation, and reporting of data.

## COURSE PREREQUISITES/COREQUISITES

Prerequisites: BIOL 2301/2101, BIOL 2302/2102, KINE 3306

Corequisite: KINE 3311 Physiology of Exercise (lecture)

## STUDENT LEARNING OUTCOMES

The students who successfully completes this course will:

- Be able to demonstrate laboratory skills commonly used in exercise testing;
- Be able to apply exercise physiology concepts to real-world examples;
- Be able to explain selected physical fitness test procedures and results of fitness tests in relation to norms;
- Be able to describe the importance of accurate data and limitations of collection of data from human subjects in research related to problems in exercise physiology.

## COURSE MATERIALS

**NOT required:** Textbook (various readings will be distributed via Canvas)

**Recommended:** Bound notebook for taking notes during lab sessions

**Required:** Exercise clothing and athletic/running shoes

**Technology:** Minimum technological requirements can be found in the *UT Tyler Student Resources* link in the **Getting Started** module in Canvas.

## COURSE FORMAT

Although we will meet in the lab for activities, course content will be delivered through Canvas. Important resources, including the syllabus, course schedule, announcements, and external links, as well as learning modules will be accessed here. Students are responsible for accessing lab content in Canvas before the week's lab activity and completing pre-lab work before that week's lab meeting.

## COURSE GRADING

***Pre-Lab Assignments (10 @ 10 pts each)***: For each lab activity, you will be required to complete a pre-lab module. These modules will provide you with the background needed to complete the lab activity. These will consist of lecture(s), video(s), reading assignments, and a quiz.

***Post-Lab Assignments (10 @ 20 pts each)***: For each lab, you will complete a post-lab assignment consisting of completed data sheet(s) and/or answers to lab questions. The assignments are due by 11:59 p.m. the following Wednesday (i.e., one week after lab). All work will be submitted through Canvas.

***Lab Exams (1 @ 100 pts)***: There will be one lab exam at the end of the semester. This exam will test you on important concepts learned in lab throughout the semester. The exam will be open notes and you can work with your classmates. Be sure to bring your lab notes with you to the exam.

***Written Assignment (1 @ 50 pts)***: You are required to complete one written assignment by the end of the semester. Details about this assignment are provided in Canvas.

***Participation (4 @ 12.5 pts each)***: Students will serve as subjects for each other for data collection in the labs. You are required to complete at least four predetermined lab tests during the semester (Note: if you have a limitation that prevents you from exercising, an alternative assignment is available).

Your final grade will be determined by your performance on the lab assignments and exams. There are a total of 300 points possible in the course. Grading will be based on a modified 10-point scale.

Lab Quizzes*	100 points	89.5 – 100% A (excellent)
Post-Lab Assignments*	200 points	79.5 – 89.49 B (above average)
Lab Exam	100 points	69.5 – 79.49 C (average)
Written Assignment	50 points	59.5 – 69.49 D (below average; fail)
Participation	50 points	< 59.5% F (well below average; fail)

*\*One lab quiz and one lab assignment will be dropped*

## POLICY ON 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 students maintain a high standard of individual honor in scholastic work. Scholastic dishonesty includes but is not limited to cheating, plagiarism, and collusion.

This class will be conducted in full compliance with the UT Tyler “no tolerance” policies concerning documented cases of plagiarism and/or academic dishonesty. Any act of cheating or plagiarized work submitted will result in a grade of zero for that assignment and further disciplinary action may be taken. Extreme cases or repeated violations may result in an F in the course and/or exclusion from the university. Please make use of the [UT Tyler Writing Center](#) if you have concerns about plagiarism.

## COURSE EXPECTATIONS

***Professionalism:*** Students are expected to display a professional attitude in all aspects of the course, including online discussions, communication with the instructor and classmates, being attentive during lectures, participating in lab activities, and being respectful to the instructor and classmates. Please do not participate in any activity that may be a distraction to others.

***Quality of Work:*** All assignments will be graded with rigor appropriate for upper-level undergraduate course work. All written assignments should incorporate correct grammar, spelling, and a logical flow of ideas. I have little tolerance for bad grammar and spelling mistakes. Please use the Spelling & Grammar tool in your word processing software. All work submitted is expected to be original and your own. Any act of cheating or plagiarism will NOT be tolerated.

***Late Work:*** Assignment instructions and due dates will be clearly posted and students will be given adequate time to complete work. No assignments will be accepted past their deadlines.

***Makeup Policy:*** Due to the participation element of this course, attendance is required. Making up missed work will be allowed ONLY according to University policies regarding attendance. Please be on time for your lab activity days.

***Safety:*** All safety rules given in class or in Canvas must be followed. Disobeying these rules can lead to serious injury to you or your classmates.

***Food and Drinks:*** No food or drink is allowed in the lab, other than water in a sealed non-glass bottle.

***Technology:*** It is expected that each student is familiar with Canvas and proficient in Microsoft Word or Apple iWorks (or similar).

## COMMUNICATION

Instructors are required to use students' Patriot account email addresses for email correspondence. Therefore, any email messages originating from me will be sent to your Patriots account. You can send me email from either your Patriots account or through Canvas. Any email you send should have your first and last name, your course and section number (e.g., KINE 3112.001), and proper punctuation. Failure to do so may delay the response time. I will try to respond to appropriately addressed emails within 1-2 business days.

## TECHNICAL SUPPORT

For technical problems with Canvas, contact **UT Tyler 24/7 Canvas Support**, which can be accessed by clicking **Help** at the bottom of the Global Navigation menu on the far left side of the browser window.

For login/password problems or support for other technical issues, contact Campus Computing Services in the Business Building (BUS 101) at 903-565-5555 or [itsupport@uttyler.edu](mailto:itsupport@uttyler.edu).

## COPYRIGHT

All handouts used in this course, including those delivered via Canvas, are copyrighted. The term handouts refers to all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, assignment sheets, recorded lectures, outlines, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, students do not have the right to copy or distribute the materials, unless I expressly grant permission.

## TENTATIVE COURSE SCHEDULE

Note: The following schedule is *tentative*. It may be adjusted, as needed, during the semester to better serve the educational needs of those enrolled in the class. Some labs may change. Any modifications to the schedule will be posted in the Canvas Announcements.

	Lab Activity	Will you exercise?
<b>Week 1</b> (Jan 10/11)	<b>Introduction to Exercise Physiology Lab / Pre-screening (Canvas)</b> <i>Assignments (Canvas): Student Introductions; participation forms</i>	No (Online)
<b>Week 2</b> (Jan 17/18)	<b>Lab 1 - Lab Concepts / Ergometry (In lab)</b> <i>Lab 1 Quiz: Lab Concepts</i> <i>Lab 1 Post-Lab Assignment: Ergometry calculations</i>	✓ (Light)
<b>Week 3</b> (Jan 24/25)	<b>Lab 2 - VO<sub>2</sub> Response to Exercise (In lab)</b> <i>Lab 2 Quiz: VO<sub>2</sub> response to exercise</i> <i>Lab 2 Post-Lab Assignment: VO<sub>2</sub> response to exercise</i>	✓ (Intense)
<b>Week 4</b> (Jan 31/Feb 1)	<b>Lab 3 - Anaerobic Power &amp; Capacity (In lab)</b> <i>Lab 3 Quiz: Anaerobic power &amp; capacity</i> <i>Lab 3 Post-Lab Assignment: ACSM metabolic calculations</i>	✓ (Intense)
<b>Week 5</b> (Feb 7/8)	<b>Lab 4 - Skeletal Muscle Function (In lab)</b> <i>Lab 4 Quiz: Skeletal muscle</i> <i>Lab 4 Post-Lab Assignment: Skeletal muscle</i>	✓ (Intense)
<b>Week 6</b> (Feb 14/15)	<b>Lab 5 - Muscular Fitness Assessment (In lab)</b> <i>Lab 5 Quiz: Muscular fitness assessment</i> <i>Lab 5 Post-Lab Assignment: Muscular fitness assessment</i>	✓ (Light)
<b>Week 7</b> (Feb 21/22)	<b>Lab 6 - Electromyography (In lab)</b> <i>Lab 6 Quiz: Electromyography</i> <i>Lab 6 Post-Lab Assignment: Electromyography</i>	✓ (Light)
<b>Week 8</b> (Feb 28/Mar 1)	<b>Lab 7 - ACSM Metabolic Equations (In lab)</b> <i>Lab 7 Quiz: ACSM Metabolic Equations</i> <i>Lab 7 Post-Lab Assignment: ACSM Metabolic Equations</i>	No
<b>Week 9</b> (Mar 7/8)	<b>Lab 8 - HR-VO<sub>2</sub> Relationship (In lab)</b> <i>Lab 8 Quiz: HR-VO<sub>2</sub> relationship</i> <i>Lab 8 Post-Lab Assignment: HR-VO<sub>2</sub> relationship</i>	✓ (Moderate)
(Mar13-17)	<b>Spring Break (No Labs)</b>	
<b>Week 10</b> (Mar 21/22)	<b>Lab 9 - Exercise Electrocardiography (In lab)</b> <i>Lab 9 Quiz: Electrocardiography</i> <i>Lab 9 Post-Lab Assignment: Electrocardiography</i>	✓ (Moderate)
<b>Week 11</b> (Mar 28/29)	<b>Lab 10 - Blood Lactate/Ventilatory Threshold (In lab)</b> <i>Lab 10 Quiz: Blood Lactate/Ventilatory Threshold</i> <i>Lab 10 Post-Lab Assignment: Blood Lactate/Ventilatory Threshold</i>	✓ (Moderate)
<b>Week 12</b> (Apr 4/5)	<b>Lab 11 - Elite Athlete Comparison (In lab)</b> <i>Lab 11 Quiz: Elite Athlete Comparison</i> <i>Lab 11 Post-Lab Assignment: Elite Athlete Comparison</i>	✓ (Moderate)
<b>Week 13</b> (Apr 11/12)	<b>Lab Final Exam (In lab)</b> - you may use your notes and work with classmates	
<b>Week 14</b> (Apr 18/19)	<b>Written Assignment Due Sunday, April 23</b> <i>No labs; Reserved for makeup labs (if needed) and VO<sub>2</sub>max testing</i>	

## UNIVERSITY POLICIES

(From the *Handbook of Operating Procedures* and the UT Tyler Website)

### **UT TYLER HONOR CODE**

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

### **STUDENT 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/rightsresponsibilities.php>

### **CAMPUS CARRY**

We respect the right and privacy of students 21 and over who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at <http://www.uttyler.edu/about/campus-carry/index.php>

### **UT TYLER A TOBACCO-FREE UNIVERSITY**

All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors.

Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products.

There are several cessation programs available to students looking to quit smoking, including counseling, quitlines, and group support. For more information on cessation programs please visit [www.uttyler.edu/tobacco-free](http://www.uttyler.edu/tobacco-free).

### **GRADE REPLACEMENT/FORGIVENESS**

Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar.

Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date is the deadline for many forms and enrollment actions that students need to be aware of. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

### **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 census date (See Academic Calendar for the specific date).

Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

### **DISABILITY SERVICES**

In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University of Tyler at Texas offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including non-visible diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or you have a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler> and fill out the *New Student* application. The **Student Accessibility and Resources (SAR)** office will contact you when your application has been submitted and an appointment with Cynthia Lowery, Assistant Director Student Services/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at <http://www.uttyler.edu/disabilityservices>, the SAR office located in the University Center, # 3150 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.

### **EMERGENCY EXITS AND EVACUATION**

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.

### **STUDENT STANDARDS OF ACADEMIC CONDUCT**

Disciplinary proceedings may be initiated against any student who engages in scholarly dishonesty, including but not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or part to another person, taking an examination for another person, any act designed to give an unfair advantage to a student or the attempt to commit such acts.

- i. "Cheating" includes, but is not limited to:
  - a. Copying from another student's test paper;
  - b. using, during a test, materials not authorized by the person giving the test;
  - c. Failure to comply with instructions given by the person administering the test;
  - d. Possession during a test of materials which are not authorized by the person giving the test, such as class notes or specifically designed "crib notes". The presence of textbooks constitutes a violation if they have specifically been prohibited by the person administering the test;
  - e. Using, buying, stealing, transporting, or soliciting in whole or part the contents of an unadministered test, test key, homework solution, or computer program;
  - f. Discussing the contents of an examination with another student who will take the examination;
  - g. Divulging the contents of an examination, for the purpose of preserving questions for use by another, when the instructor has designated that the examination is not to be removed from the examination room or not to be returned or to be kept by the student;
  - h. Substituting for another person, or permitting another person to substitute for oneself to take a course, test, or any course-related assignment;
  - i. Paying or offering money or other valuable thing to, or coercing another person to obtain an unadministered test, test key, homework solution, or computer program or information about an unadministered test, test key, homework solution, or computer program;
  - j. Falsifying research data, laboratory reports, and/or other academic work offered for credit;
  - k. Taking, keeping, misplacing, or damaging the property of The University of Texas at Tyler, or of another, if the student knows or reasonable should know that an unfair academic advantage would be gained by such conduct; and
  - l. Misrepresenting facts, including providing false grades or resumes, for the purpose of obtaining an academic or financial benefit or injuring another student academically or financially.
- ii. "Plagiarism" includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining by any means another's work and the submission of it as one's own academic work offered for credit.
- iii. "Collusion" includes, but is not limited to, the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any section of the rules on academic dishonesty.
- iv. All written work that is submitted will be subject to review by plagiarism software.

### **UT TYLER RESOURCES FOR STUDENTS**

- [UT Tyler Writing Center](mailto:writingcenter@uttyler.edu) (903.565.5995), [writingcenter@uttyler.edu](mailto:writingcenter@uttyler.edu)
- [UT Tyler Tutoring Center](mailto:tutoring@uttyler.edu) (903.565.5964), [tutoring@uttyler.edu](mailto:tutoring@uttyler.edu)
- The Mathematics Learning Center, RBN 4021, this is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in early-career courses.
- [UT Tyler Counseling Center](tel:903.566.7254) (903.566.7254)