ENVIRONMENTAL EXERCISE PHYSIOLOGY
Department of Health & Kinesiology
The University of Texas at Tyler

Course Syllabus

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Course: KINE 5306-060 (Spring 2018)
Class time: Online (see Course Structure below)
Classroom: Canvas
Instructor: Scott A. Spier, Ph.D.
Associate Professor
Department of Health and Kinesiology
Office: Herrington Patriot Center 3040
Phone: (903) 566-7427
Email: sspier@uttyler.edu
(Please use “KINE 5306” or “EEP” in the subject line)
*Note: Please do NOT use “patriots” in my email address; I won’t get it.
Office hours: Tu 11:00 a.m. – 1:00 p.m., Thur 1:00 - 3:00, or by appointment

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MATERIALS

Textbook: There is no required textbook for this course. The textbook Advanced Environmental Exercise Physiology (Human Kinetics, 2010; ISBN: 978-0-7360-7468-1) by Stephen S. Chung is a good resource, but is not required. Any good exercise physiology text, though not required, may also be helpful, particularly if you need a refresher on the basics of exercise physiology.

Assigned Readings: Readings from review articles and/or original research articles will be assigned in each lesson. Some of these assigned readings will provide background for the lectures while others will serve to further our discussion of the particular topic of study for that module.

Technical requirements: Minimum technological requirements that must be met in order to complete this course can be found in the UT Tyler Student Resources link in the GETTING STARTED module in Canvas. If you have technical problems, please refer those to Campus Computing Services.

COURSE DESCRIPTION

Environmental factors (e.g., temperature and humidity, hypoxia, atmospheric pressure, pollution, etc.) can have a considerable effect on physiological responses to acute exercise and on physiological adaptations to exercise training. This course provides the student with a comprehensive understanding of how these environmental factors affect the physiological response to exercise. In particular, acute physiological responses to heat, cold, altitude, microgravity, hyperbaric environments, and sleep deprivation, as well as adaptations to these environments, will be discussed thoroughly.

COURSE PREREQUISITES

Although there is no official prerequisite for this course, it is assumed that every student has successfully completed classes in Anatomy & Physiology and in Exercise Physiology at the undergraduate level. Though not required, ideal preparation for this class would also include graduate-level Exercise Physiology.
COURSE OBJECTIVES

Students who successfully complete this course will be able to:

1. Describe the physiological responses and potential adverse reactions to hot and cold environments and the effect of these environments on exercise performance;
2. Describe the physiological responses and potential adverse reactions to a hyperbaric environment;
3. Describe the physiological responses and potential adverse reactions to a hypoxic environment and the effects of this on exercise performance at altitude and sea level;
4. Describe the physiological adaptations and potential adverse reactions to microgravity and the consequences of these adaptations upon return to Earth;
5. Describe the physiological responses and potential adverse reactions to sleep deprivation and its effects on exercise performance;

*More specific learning outcomes will be provided in each learning module.

This course addresses these objectives through the following:

1. study of basic facts, concepts and theories of environmental exercise physiology;
2. critically reading and discussing research related to environmental exercise physiology;
3. discussing in writing questions and viewpoints related to environmental exercise physiology, analyzing and supporting viewpoints based on research evidence;
4. applying theoretical concepts in environmental exercise physiology.

COURSE STRUCTURE

This class meets online on Canvas. You will find that this class is very similar to a traditional on-campus class in that it will consist of recorded lectures, readings, review of research literature, discussions, written assignments, quizzes, and/or exams. In contrast to a traditional on-campus class, assignments in this course can be completed asynchronously. In other words, there will be no scheduled meeting times in this class. You may access course content and complete assignments at your convenience, though you still must meet assignment and testing deadlines.

The Getting Started tab in the menu on the left side of the page will explain the different Canvas functions you will use in this class. The content of this course is organized into weekly modules and will be accessed in the Modules tab in Canvas. Within each module, you will find learning objectives, assigned readings, recorded lectures and/or videos associated with the reading assignments, a discussion topic, and a quiz over the assigned content.

INSTRUCTIONAL METHODS

Instructional methods will include lecture, discussion, and evaluation of research articles. Student activities will include, though may not be limited to: (a) required readings; (b) writing assignments on topics related to environmental exercise physiology; (c) participating in small-group and whole-class discussions; and (d) completing quizzes and exams.

COURSE REQUIREMENTS AND EVALUATION

Exams: There will be 3 major exams in this class. The first two exams will be given during the regular semester and will consist of material covered up to that time. Exams will consist of multiple choice, short answer (one-word answers), and/or essay questions over material assigned in lectures, assigned readings, research articles, and discussions. Although the exams mostly focus on the content covered up to that time, they are cumulative in the sense that understanding of content presented earlier in the semester is necessary for comprehending content later in the semester. The third (final) exam will be held during the scheduled final examination period and will be comprehensive.

Online quizzes: Each weekly lesson will contain a short online quiz to assess your understanding of the material. You may use your textbook and reading assignments to complete the quizzes; however, I ask that you take these quizzes by yourself. You may take each quiz up to 3 times during the time they are available and only your highest score will count as that module quiz score. Each weekly quiz will be
available through the end of that week's module (i.e., Sunday nights). Do not wait until the last minute to complete these (in case of computer problems, power outages, etc.).

**Literature Review:** For this assignment, you will research, review, and summarize peer-reviewed literature regarding a specific topic directly related to environmental exercise physiology (with approval). The purposes of this assignment are to promote a deeper understanding regarding a specific area of environmental exercise physiology, to provide students with practice critically reviewing and summarizing research, and to provide students with practice writing scientific papers. Details about this assignment as well as potential topics will be provided in Canvas.

**Discussions:** Due to the online nature of the course, interaction with students and the instructor will occur through online discussions in Canvas. These discussion assignments allow you to demonstrate your comprehension of the course material and your ability to communicate that comprehension through writing. Throughout the semester, you will be required to respond to questions about the reading assignments, lectures, research articles, and/or current topics in exercise physiology. Your responses will be graded on the basis of the quality of your responses.

**Evaluation:** Points for the above assignments will be allocated as follows:

- Exam 1 20%
- Exam 2 20%
- Exam 3 20%
- Literature Review 20%
- Quizzes 10%
- Discussion 10%

Grading will be based on a modified 10-point scale as detailed below:

- 89.5 – 100%  A (excellent)
- 79.5 – 89.49%  B (above average)
- 69.5 – 79.49%  C (average)
- 59.5 – 69.49%  D (below average; fail)
- < 59.5%  F (well below average; fail)

**COURSE POLICIES**

**Professionalism:** Students are expected to display a professional attitude in all aspects of the course, including discussions in Canvas and FlipGrid and communication with the instructor and classmates.

**Quality of work:** All assignments, including exams, presentations, participation, and projects, will be graded with rigor appropriate for graduate 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 and Grammar tool in your word processing software.

**Policy regarding late submission of an assignment:** No assignments or discussion posts will be accepted past their deadlines. Since completion of some assignments in this course depends on the completion of previous assignments (e.g., discussion posts), it is imperative that you submit your assignments on time.

**Make-up work:** Make-up exams and assignments will be given only according to University policy. On rare occasions (and for a valid reason), make-up exams can be scheduled by pre-arrangement with the instructor before the date of the exam. If any exam is missed due to illness, injury, or family emergency, the instructor should be notified prior to or within 24 hours of the missed exam.

**Feedback on exams/assignments:** I will strive to give timely feedback on all assignments. You should expect feedback on discussion posts within a couple of days and feedback on papers and exams within 1 week (I will notify you if I expect feedback to take a little longer for a particular assessment).

**Getting help:** If you find yourself struggling in the class (especially if you fail an exam), you should meet with me as soon as possible so that we can determine what steps you need to take to succeed in the class. I’m available during my office hours or by appointment. I also have an open door policy.
If you have trouble with writing assignments, please contact the Writing Center on campus at 903-565-5995. They have tutors and other resources available to assist you with your written assignments.

**TIME REQUIREMENTS**

Successful on-line learning is highly student-initiated. Because of the format of the course, the student will be required to exercise initiative and diligence in completing the course. In general, you should expect to spend a similar amount of time completing the requirements of this online course as you would spend on the same course taught in the traditional classroom format. An advantage of the online format is that the lecture material is there for you to review whenever you want. In an online course, more time must be devoted to participation in discussions than is traditionally spent in classroom discussions. Time for completion of assignments, readings and other materials, reviewing for comprehension, and preparing for exams should be similar in this online course as in any other course. As a rough guide, you should plan to spend approximately 10-15 hours per week on this course. The actual amount of time required will, of course, vary from one person to another. It is absolutely essential that you do not fall behind.

Although this is an asynchronous course, this is not an individually paced course. Access to course materials, assigned discussions, assignments, exams, and the like will follow a schedule spread out over the semester (similar to a class in the traditional format). There will be set dates for exams and deadlines by which you must complete all unit assignments. Deadlines for assignments are listed in the Course Schedule in the Syllabus link.

If you encounter any unforeseen circumstances (family emergency, jury duty, etc.) that greatly compromise your coursework, contact the instructor immediately. Alternatives for missed time may be arranged at the discretion of the instructor. Note: Vacation time does not count as an excused “absence”. Please plan your vacations around assignment due dates or submit your assignments early.

**COURSE COMMUNICATION**

Course Announcements: Announcements will be posted periodically during the semester. You will be able to see these announcements on your course portal page and in your Patriots email account. Please check these frequently so you do not miss any important information.

E-mail communication: Instructors are required to use your Patriots account e-mail address for e-mail correspondence. Therefore, any e-mail message originating from me will be sent to your Patriots account. However, if you send me e-mail from another personal account, I will reply back to that address. You may want to set up your personal e-mail account so that it pushes your Patriots account e-mail to your personal inbox. Due to teaching and research loads, it may take 1 to 2 business days to respond to e-mail; however, I'll make every effort to respond to e-mail on the same day. Please note that e-mails received on the weekends (late Friday through early Monday) will generally be responded to on the following Monday.

In all e-mail correspondence, please include the course number in the subject line (e.g., "KINE 5306 question" or "EEP assignment"). Failure to do so reduces the likelihood of me reading the e-mail. Please use correct grammar and punctuation. If your e-mail address doesn’t contain your name, please sign your e-mail with your name at the end of the correspondence.

**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:

"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.

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

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

If you have any questions regarding plagiarism, please consult Chapter 8 of the Student Affairs Manual of Policy and Procedures.

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. Please make use of the UT Tyler Writing Center if you have concerns about plagiarism.

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, you do not have the right to copy the handouts, unless I expressly grant permission.

UNIVERSITY POLICIES

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

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

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.

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.

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.

UT TYLER RESOURCES FOR STUDENTS
• UT Tyler Writing Center (903.565.5995), writingcenter@uttyler.edu
• UT Tyler Tutoring Center (903.565.5964), 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 (903.566.7254)
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<td>1</td>
<td>1/16/18</td>
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<td>Getting Started</td>
<td>Module 1 - Intro to Environmental Exercise Physiology</td>
<td>Introductions and Module 1 discussion due 1/21/18</td>
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<td>Module 2 - Physiological Responses to Heat</td>
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<td>Module 4 - Physiological Responses to Cold</td>
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<td>Exam 1 (Modules 1 - 4)</td>
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<td>Module 5 - Hyperbaric Physiology (Sport Diving)</td>
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<td>Module 9 quiz and discussion due 4/8/18</td>
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