

KINE 5320: Advanced Exercise Physiology
Fall 2016

Instructors:

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Office Hours: Open Door Policy / Schedule an Appointment

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Section Information: KINE 5320-001

Time and Place of Class Meetings: PEB 202 (Physical Education Building) Mon 2:00-4:50

Description of Course Content / Course Objectives: The goal of this course is to provide students information regarding the integrative physiological response to exercise. We will discuss the mechanisms of control in healthy individuals and how these mechanisms are impaired in various scenarios as well as in “at risk” and diseased populations. The student will also gain experience in the process of critically understanding and digesting various issues related to the control of physiological systems during exercise. Lastly, the student will gain experience in presenting research topics to an audience.

Student Learning Outcomes: Students will be expected to know the following:

- 1) Systems Physiology (pulmonary, skeletal muscle, cardiac and cellular, metabolism)
- 2) An understanding of the limitations to physical function (activities of daily living)
- 3) The impact of different environments upon health and physical function
- 4) The effect of various disease conditions on physical function

Required Textbook and Other Course Materials: Class Text (suggested): Powers & Howley. Exercise Physiology: Theory and Application to Fitness and Performance 8th Edition (2012).

Miscellaneous (Peer Reviewed Manuscripts / Review Articles, etc.): Will be posted in the “course material folder” on the Blackboard web site for this course.

Course Policies:

- Attend all classes and arrive on time. We will start promptly at 2:00 PM
- Turn off beepers, pagers, cellular phones, or other communication devices. If you can't for legitimate reasons, set them to vibration mode.
- Computers are to be used only for class related activities.
- Exams and assignment due dates are firm. Arrangements **MUST** be made ahead of time in the event of scheduling issues.

- **Read all assignments ahead of time and come to class prepared to contribute to scholastic dialogue.**

Descriptions of major assignments and examinations:

- Class Participation (group discussions, written questions / comments during student presentations, etc...): A critical component to this course is the scholarly interaction amongst all involved (students and teacher). Therefore you will be expected to come to class having read all of the materials and prepared to engage in open dialogue about the “topic of the day”.
- Exams: You will be given 3 exams throughout the semester. The first two will be about the course related content that we go over during the lectures. The third exam will be over the presentation topics (see below for more information). The exams will be comprised of a variety of types of questions; i.e. multiple choice, fill in the blank, short answer, interpreting / drawing graphs etc...
- Presentation: During the last few weeks of the semester each student will give a formal PPT presentation on a particular research paper focused on one or more of the course topics (pulmonary, skeletal muscle, cardiac and cellular, metabolism). In addition to the presenter it is expected that the non-presenting students have read the paper and are prepared to actively engage in scholarly dialogue during the “question and answer” section of the presentation.

General Guidelines for Student Presentations (Presenter):

- These are designed to be formal presentations of an original peer reviewed research article to the class. It is expected that this is treated as if you were presenting at a research conference.
- Each presentation will be 20 minutes in length (strictly enforced) and should contain 10 minutes of a power point presentation followed by 10 minutes group questions / discussion of the work.
- All articles must be published in a scientific journal of reasonably high impact. The article should be generally related to the content of the course and must be selected by the student and approved by Dr. Brothers and/or Dr. Nelson prior to the presentation.
- Papers must be submitted to your class mates a minimum of one week prior to your presentation.

General Guidelines for Student Presentations (Non-Presenters / Audience):

- All students are expected to critically read all papers prior to the presentation and to ask questions / provide commentary during the 10 min discussion period.
- Each student must come to class with a minimum of three questions and / or comments for each of the articles to be presented that day. These questions must be typed up and must be turned in to Dr. Brothers / Dr. Nelson each day.

Attendance: Attendance is highly recommended not only for the intellectual growth of the student but also because a component of your grade (see below) will be determined by your class participation and thus, any unexcused absence will result in a 0 for participation for that day.

Grading / Course Evaluation:

- Class Participation (group discussions, performance on quizzes, written questions / comments during student presentations, etc...):	15%
- Exam #1:	25%
- Exam #2:	25%
- Presentation:	20%
- Exam #3	15%

Make-up Exams: Exams can only be made-up if approved by the instructor prior original exam date.

Grade Grievances: Any appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current University Catalog. <http://catalog.uta.edu/academicregulations/grades/#graduatetext>

Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through selfservice in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://wweb.uta.edu/aao/fao/>).

Disability Accommodations: UT Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including *The Americans with Disabilities Act (ADA)*, *The Americans with Disabilities Amendments Act (ADAAA)*, and *Section 504 of the Rehabilitation Act*. All instructors at UT Arlington are required by law to provide “reasonable accommodations” to students with disabilities, so as not to discriminate on the basis of disability. Students are responsible for providing the instructor with official notification in the form of a **letter certified** by the Office for Students with Disabilities (OSD). Only those students who have officially documented a need for an accommodation will have their request honored. Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:

The Office for Students with Disabilities, (OSD) www.uta.edu/disability or calling 817-272-3364. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability.

Counseling and Psychological Services, (CAPS) www.uta.edu/caps/ or calling 817-272-3671 is also available to all students to help increase their understanding of personal issues, address mental and behavioral health problems and make positive changes in their lives.

Non-Discrimination Policy: *The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit uta.edu/eos.*

Title IX Policy: The University of Texas at Arlington (“University”) is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in

educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act). Sexual misconduct is a form of sex discrimination and will not be tolerated. *For information regarding Title IX, visit www.uta.edu/titleIX or contact Ms. Jean Hood, Vice President and Title IX Coordinator at (817) 272-7091 or jmhood@uta.edu.*

Academic Integrity: Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

UT Arlington faculty members may employ the Honor Code in their courses by having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University. Additional information is available at <https://www.uta.edu/conduct/>.

Electronic Communication: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

Campus Carry: Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. Under the new law, openly carrying handguns is not allowed on college campuses. For more information, visit <http://www.uta.edu/news/info/campus-carry/>

Student Feedback Survey: At the end of each term, students enrolled in face-to-face and online classes categorized as "lecture," "seminar," or "laboratory" are directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback via the SFS database is aggregated with that of other students enrolled in the course. Students' anonymity will be protected to the extent that the law allows. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law and aggregate results are posted online. Data from SFS is also used for faculty and program evaluations. For more information, visit <http://www.uta.edu/sfs>.

Final Review Week: for semester-long courses, a period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week

unless specified in the class syllabus. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Emergency Exit Procedures: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, which is located through the main exit, to the right and outside. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

Student Support Services: UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include [tutoring](#), [major-based learning centers](#), developmental education, [advising and mentoring](#), personal counseling, and [federally funded programs](#). For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at <http://www.uta.edu/universitycollege/resources/index.php>.

The IDEAS Center (2nd Floor of Central Library) offers **free** tutoring to all students with a focus on transfer students, sophomores, veterans and others undergoing a transition to UT Arlington. To schedule an appointment with a peer tutor or mentor email IDEAS@uta.edu or call (817) 272-6593.

The English Writing Center (411LIBR): The Writing Center Offers free tutoring in 20-, 40-, or 60-minute face-to-face and online sessions to all UTA students on any phase of their UTA coursework. Our hours are 9 am to 8 pm Mon.-Thurs., 9 am-3 pm Fri. and Noon-6 pm Sat. and Sun. Register and make appointments online at <http://uta.mywconline.com>. Classroom Visits, workshops, and specialized services for graduate students are also available. Please see www.uta.edu/owl for detailed information on all our programs and services.

The Library's 2nd floor Academic Plaza offers students a central hub of support services, including IDEAS Center, University Advising Services, Transfer UTA and various college/school advising hours. Services are available during the library's hours of operation. <http://library.uta.edu/academic-plaza>

Tentative Lecture Schedule

<u>Date</u>	<u>Lecture Topic / Instructor</u>	<u>Readings*</u>
8/29	General Class Intro	
9/5	<u>No Class – Labor Day</u>	
9/12	Exercise metabolism (MB)	Ch 4
9/19	Exercise metabolism (MB)	Ch 4
9/26	Skeletal muscle / fiber type (MB)	Ch 8
10/3	Skeletal muscle / Renal	Ch 8 / Ch 11
10/10	Exam #1	
10/17	Cardiovascular (MN)	Ch 9
10/24	Cardiovascular (MN)	Ch 9
10/31	Respiratory (MN)	Ch 10
11/7	Respiratory (MN)	Ch 10
11/14	Exam #2 (MN)	
11/21	Student Presentations (MB & MN)	
11/28	Student Presentations (MB & MN)	
12/5	Exam #3 (MB & MN)	

*** Be sure to check blackboard regularly for any additional readings**