

Introduction to Exercise Science

KINE 1400 Lecture and Laboratory

Fall 2012

Instructor: David Keller, Ph.D.

Phone: 817-272-0083

e-mail: kellerd@uta.edu

Course: KINE 1400, Section 001

Credit: 4 semester credit hours

Time and Place of Class Meetings: Maverick Activities Center #206 (Lone Star Auditorium)

Tu-Thu 8:00 a.m.-9:20 p.m. Labs meet in room 150 MAC (Downstairs Kinesiology Labs)

Office: 115 MAC

Office Hours: Tuesday, Thursday 9:30-11:30

(by appointment)

Description of Course Content: Lectures, labs and assignments are designed to introduce students to the field of exercise science and resources outside the classroom available for additional study. An overview includes topics on acute and chronic physiological responses to exercise, nutrition, biomechanics, concepts in health-related and physical fitness, and statistics. Students will also gain knowledge in the use of spreadsheets for analyzing data and creating charts.

Student Learning Outcomes:

The student will be able to perform blood pressure and body fat analysis as part of a fitness testing program.

The student will be able to develop a cardiovascular and strength training program for a client.

The student will be able to explain the acute and chronic effects of exercise on the cardiovascular system.

The student will be able to explain the acute and chronic effects of exercise on the musculoskeletal system.

The student will be able to identify the different effects that exercise has on special populations such as children, elderly, diseased and the elite athlete.

The student will be able to understand the different effects that exercise has on male and females.

The student will be able to explain and identify statistical terms and their use in Kinesiology

The student will be able to obtain data in the lab and evaluate that data through graphing.

The student will be able to identify the three main planes of movement.

Requirements: Basic computer skills and an understanding of the Microsoft Excel program. Students are required to attend laboratories and participate in all laboratory assignments.

Required Text:

1. Howley & Thompson (2012). Fitness Professionals Handbook, 6th Edition. Publisher: Human Kinetics.
2. Introduction to Exercise Science Lab Manual - KINE 1400. This may be obtained at the UTA bookstore.

*** Basic calculator is required – does not have to be a scientific calculator.**

Description of Major Examinations And Grading:

Test 1	Tuesday, September 18 th	15%
Test 2	Thursday, October 11 th	20%
Test 3	Thursday, November 8 th	20%
Test 4	Tuesday, December 11 th	20%
Weekly Lab Assignments-Due in lab or the following lab day		25%
		100%

(A = 90-100%, B = 80-89.49%, C = 70-79.49%, D = 60-69.49%, F ≤59.49%)

It is not the instructor's responsibility to compute your grade throughout the semester. To compute your grade, take the total points earned for a specific part of the evaluation (exams, etc.) divided by points possible and multiply the points allotted for that part of the course by the percentage of total point earned in that section. Do the same for each part of the course grade and add the parts together, that is your score out of 100%.

You will need your UTA ID, Scantron (882-E) and a #2 pencil for each of the major exams.

***Bring the minimum to class on exam days; you will leave all of your belongings outside of the room. No hats, head coverings, players or cell phones will be allowed on exam days.**

Cheating is not allowed. Cheating will result in a zero grade for the exam and you will be written up for Academic Dishonesty.

Expectations for Out-of-Class Study: Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional 12 hours per week of their own time in course-related activities, including reading required materials, completing assignments, preparing for exams, et cetera.

Makeup Exams: There will be **no make-ups** for missed major exams, except for **university excused absences that must be turned in one week prior to the exam.** However, in cases of **extreme emergencies** contact the instructor **before the exam** and your situation will be **considered for approval or denial.** Without notification, your absence on exam day gives you a zero grade for the exam. Unless you have a university excused absence, even with notification there is no guarantee that you will be allowed to make up the exam.

Expectations for Out-Of-Class Study: Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional 12 hours per week of their own time in course-related activities, including reading required materials, completing lab assignments, preparing for exams, etc.

CONDUCT IN LECTURE: Failure to comply with conduct guidelines will result in expulsion from the class that day or a zero on the lab assignment that week. Attendance in lecture is not required but highly suggested.

During the lecture and lab students are expected to:

Have cell phones turned off and put up. No text messaging will be allowed.

No headphones with music players are allowed.

Laptops are allowed provided they are not a distraction to those around you.

Examples improper participation includes but is not limited to:

Leaving class or lab early before the instructor dismisses class.

Sleeping, reading the paper, working on other assignments, watching videos or other inattentive activity.

Attendance: Attendance to the lecture portion of this class is not mandatory.

Laboratory Attendance Policy: Lab attendance is mandatory. You must be present in lab to obtain data for the assignments. Lab data will not be given to students who do not attend lab unless they have a documented & approved University excused absence.

Examples of Lab Absences include, but are not limited to the following:

Not attending or arriving >10 minutes late. If you arrive late for lab you will not be allowed to participate.

Leaving lab early before the instructor dismisses class.

Not being properly dressed out for lab. Loose T-shirt or tank top, above the knee shorts, and running/tennis shoes are required for lab.

Refusal to participate in lab activities (example: exercising, taking blood pressures and body fat analysis, being a subject for others, etc.).

NOTE: Leaving lab early will result not only in an absence for the day but also a zero on the assignment you are to turn in the following week.

NOTE: Documentation for absences will not be accepted more than one week after the absence.

It is your responsibility to bring your student ID with you to every lab class so that you can have access to the Mavericks Activities Center when needed and for test day. You are not allowed access to the Exercise Science Research Lab in open toe shoes.

WEEKLY LAB ASSIGNMENTS (25%): All **lab assignments** will be turned in at the beginning of the class period on the due date. Lab assignments will not be accepted without a cover sheet. **Lab assignments** will always be due at the beginning of class one week from the date of completion of the data collection. **NO LAB ASSIGNMENTS WILL BE ACCEPTED AFTER THE FIRST 10 MINUTES OF THE LAB CLASS. IF YOU MISS A LAB WITH AN UNEXCUSED ABSENCE YOU WILL GET A ZERO FOR THAT ASSIGNMENT.**

A university excused absence or documentation (i.e. University approved activity, proof you were in jail, doctor's note **on appropriate letterhead with appropriate signature**) is required in order to have consideration for make-up of a lab absence.

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 undergraduate / graduate catalog. For undergraduate courses, see http://www.uta.edu/catalog/content/general/academic_regulations.aspx#10; for graduate courses, see <http://www.uta.edu/gradcatalog/2012/general/regulations/#grades.>]

Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through self-service 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://www.uta.edu/ses/fao>).

Americans with Disabilities Act: The University of Texas at 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)*. 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 that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Academic Integrity: All students enrolled in this course 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.

Instructors may employ the Honor Code as they see fit in their courses, including (but not limited to) 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.

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 www.uta.edu/resources.

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>.

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory shall be directed to complete a 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 enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

Final Review Week: 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.

“As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. – David Keller.”

Fall 2012 – KINE 1400 Lecture Schedule – Lone Star Auditorium, MAC

Date	Topic
<i>Week 1</i>	
August 23	Introduction to course, Chapter 1 – Health, Fitness and Performance
<i>Week 2</i>	
August 28, 30	Chapter 1 – Health, Fitness and Performance Chapter 2 – Health Appraisal
<i>Week 3</i>	
September 4, 6	Chapter 4 – Exercise Physiology
<i>Week 4</i>	
September 11, 13	Chapter 25 – Exercise Related to ECG & Medications (pgs. 459-466 first column) Review for Test 1
<i>Week 5</i>	
September 18, 20	Test 1 (15%) - Tues (September 18th) Chapters: 1, 2, 4, 25 (pgs. 459-466 first column) Chapter 11 – Exercise Prescription for Cardiorespiratory Fitness
<i>Week 6</i>	
September 25, 27	Chapter 11 – Exercise Prescription for Cardiorespiratory Fitness Chapter 13 – Exercise Prescription for Muscular Fitness
<i>Week 7</i>	
October 2, 4	Chapter 15 - Exercise and Children and Youth Chapter 8 – Body Composition
<i>Week 8</i>	
October 9, 11	Review for Test 2 Test 2 (20%) - Thursday (October 11th) Chapters: 8, 11, 13, 15, Selected ECGs
<i>Week 9</i>	
October 16, 18	Anaerobic Power Lecture (not in textbook) Chapter 21 - Exercise, Asthma, and Pulmonary Disease
<i>Week 10</i>	
October 23, 25	Chapter 16 – Exercise and Older Adults Chapter 18 – Exercise and Coronary Heart Disease
<i>Week 11</i>	
October 30, Nov. 1	Chapter 12 - Exercise Prescription for Weight Management
<i>Week 12</i>	
November 6, 8	Review for Test 3 Test 3 (20%) – Thursday (Nov. 8th) Anaerobic Power Lecture, Chapters: 12, 16, 18, 21, ECGs
<i>Week 13</i>	
November 13, 15	Chapter 20 - Exercise and Diabetes
<i>Week 14</i>	
November 20	Chapter 5 - Nutrition
<i>Week 15</i>	
November 27, 29	Supplements Lecture (not in textbook),
<i>Week 16</i>	
December 4th	Chapter 3 – Functional Anatomy and Biomechanics Review for Test 4
<i>Week 17</i>	
Test 4	Tuesday (December 11th), 11:00 a.m. Test 4 (20%) Non-Cumulative Chapters: 3, 5, 20 Supplements Lecture, Selected ECGs

Fall 2012 - KINE 1400 Lab Schedule - All Labs Will Be In Room 150 MAC

<u>Date</u>	<u>Topic</u>	<u>Assignment</u>
Week 1		
August 23	NO 1400 LABS THIS WEEK DUE TO THURSDAY START	Assignment
Week 2		
August 27-29	Lab #1, Resting Heart Rate and Blood Pressure, page 2	Assignment Complete 10 blood pressure checks
Week 3		
September 4-5	Lab #2, Flexibility Overview, Page 7 No Monday labs due to Labor Day Holiday	Assignment (100 points) Complete 5 blood pressures
Week 4		
September 10-12	Lab #3, Fitness Pre-Testing, Page 10	Assignment (100 points) Complete 5 blood pressures
Week 5		
September 17-19	Lab #4, Spreadsheet Lab, Page 11 **Bring a laptop if you have one	Assignment (100 points) Practice blood pressures
Week 6		
September 24-26	Lab #5, Reliability and Validity, Page 15 **Bring a laptop if you have one	Assignment (100 points) Practice blood pressures
Week 7		
October 1-3	BLOOD PRESSURE PRACTICAL, Page 58	Assignment (2.5%)
Week 8		
October 8-10	Lab #8, Estimation of Body Composition from Skinfolds Page 27	Assignment (100 points) Perform 5 Skinfold Tests
Week 9		
October 15-17	Lab #9, Anaerobic Power, Page 31	Assignment (100 points) Perform 5 Skinfold Tests
Week 10		
October 22-24	Lab #10, Ventilatory Response to Exercise, Page 35	Assignment (100 points) Perform 5 Skinfold Tests
Week 11		
October 29-31	Lab #11, Prediction of VO₂max and Metabolic Responses Page 40	Assignment (100 points) Perform 5 Skinfold Tests
Week 12		
November 5-7	BODY COMPOSITION PRACTICAL, Page 59	Assignment (2.5%)
Week 13		
November 21-14	Lab #6, Heart Rate and Blood Pressure Responses to Exercise Page 18	Assignment (100 points)
Week 14		
November 19	Lab #2, Flexibility Overview, Page 7 Monday labs only, makeup for Labor Day	Assignment (100 points)
Week 15		
November 26-28	Lab #12, Introduction to Muscle Physiology, Page 45	Assignment (100 points)
Week 16		
December 3-5	Lab #13, Fitness Post Testing. Page 48	Assignment (100 points)

