Instructor: Sue Beckham, Ph.D.
ACT 230
817-272-3108

Co-Instructor: Bill Coari, MS
PEB 200
817-272-2108

Mailbox: Dept. Of Kinesiology
Box 19259
Arlington, TX 76019

Office Hours: Monday: 10:30 am - Noon
Thursday: 1:30 – 3:00 pm
Or by appointment

Email: Work: sueb@uta.edu and coari@uta.edu
Home: sbeckham@worldnet.att.net

Class Schedule: Lecture: 11:00-11:50 am T/R PEB 303
Labs: Monday: 2-4:50 pm 153 ACT
      Tuesday: 12:00-3:50 pm 153 ACT

Credit: 3 Semester Credit Hours

Required Textbooks:


American College of Sports Medicine. ACSM’s Health-Related Physical Fitness Assessment Manual.,
Baltimore: Lippincott, Williams & Wilkins, 2005.


Laboratory Manual for EXSS 4315 - must be purchased at the University Book Store.

Other resource texts will be presented throughout the semester. Refer to the laboratory manual for required journal assignments.

Prerequisites: Current CPR/AED Certification, MATH 1302, KINE 3300, 3315, 3325.
Students must show proof of CPR/AED by October 1, 2004. It may be taken on or off campus.
Students without CPR/AED will not be allowed to continue in the class after that date.
Course Objectives: Lecture and laboratory sessions are designed to provide the student with a scientific basis and practical application for fitness assessment and interpretation of results. This curriculum is designed to prepare the student for the fitness assessment related knowledge, skills and abilities required for the ACSM Health/Fitness Instructor Certification. The following are ACSM KSA’s addressed in this course:

Knowledge of the following terms: ischemia, angina pectoris, tachycardia, bradycardia, arrhythmia, myocardial infarction, cardiac output, stroke volume, lactic acid, oxygen consumption, hyperventilation, systolic blood pressure, diastolic blood pressure, and anaerobic threshold.

Knowledge to describe normal cardiorespiratory responses to static and dynamic exercise in terms of heart rate, blood pressure, and oxygen consumption.

Knowledge of the relationship between the number of repetitions, intensity, number of sets, and rest with regard to strength training.

Knowledge of and ability to discuss the physiological basis of the major components of physical fitness: flexibility, cardiovascular fitness, muscular strength, muscular endurance, and body composition.

Knowledge of the components of fitness: cardiorespiratory fitness, muscular strength, muscular endurance and flexibility.

Knowledge of cardiovascular risk factors or conditions that may require consultation with medical personnel before testing or training, including inappropriate changes in resting or exercise heart rate and blood pressure, new onset discomfort in chest, neck, shoulder, or arm, changes in the pattern of discomfort during rest or exercise, fainting or dizzy spells, and claudication.

Knowledge of respiratory risk factors or conditions that may require consultation with medical personnel before testing or training, including asthma, exercise-induced bronchospasm, extreme breathlessness at rest or during exercise, bronchitis, and emphysema.

Knowledge of metabolic risk factors or conditions that may require consultation with medical personnel before testing or training, including body weight more than 20 above optimal, BMI 1 30, thyroid disease, diabetes or glucose intolerance, and hypoglycemia.

Knowledge of musculoskeletal risk factors or conditions that may require consultation with medical personnel before testing or training, including acute or chronic back pain, osteoarthritis, rheumatoid arthritis, osteoporosis, tendonitis, and low back pain.

Knowledge of common drugs from each of the following classes of medications and describe the principal action and the effects on exercise testing and prescription: antianginals, antihypertensives, antiarrhythmics, bronchodilators, hypoglycemics, and psychotropics.
Knowledge of safety plans, emergency procedures, and first aid techniques needed during fitness evaluations, exercise testing, and exercise training.

Knowledge of the health/fitness instructor's responsibilities, limitations, and the legal implications of carrying out emergency procedures.

Skill to measure pulse rate accurately both at rest and during exercise.

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Knowledge, skills, and abilities to assess the health status of individuals and the ability to conduct fitness testing.

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Skill in instructing participants in the use of equipment and test procedures.

Skill in accurately measuring heart rate, blood pressure, and obtaining rating of perceived exertion (RPE) at rest and during exercise according to established guidelines.

Skill in various techniques of assessing body composition

Skill in techniques for calibration of a cycle ergometer and a motor-driven treadmill.

Skill in demonstrating appropriate emergency procedures during exercise, testing and/or training.

Ability to describe the following curvatures of the spine: lordosis, scoliosis, and kyphosis.

Ability to locate the anatomic landmarks for palpation of peripheral pulses.

Ability to locate the brachial artery and correctly place the cuff and stethoscope in position for blood pressure measurement. Ability to locate common sites for measurement of skinfold thicknesses and circumferences (for determination of body composition and waist-hip ratio).

Ability to identify and apply to both groups and individuals methods used to monitor exercise intensity, including heart rate and rating of perceived exertion.

Ability to discuss the physiological principles involved in promoting gains in muscular strength and endurance.

Ability to describe how each of the following differs from the normal condition: premature atrial contractions and premature ventricular contractions.

Ability to describe how each of the following differs from the normal condition: dyspnea, hypoxia, and hypoventilation.
Ability to explain how the principle of specificity relates to the components of fitness.

Ability to explain how the principle of specificity relates to the components of fitness.

Ability to explain the concept of detraining or reversibility of conditioning and its implications in fitness programs.

Ability to describe the physiological and metabolic responses to exercise associated with chronic disease (heart disease, hypertension, diabetes mellitus, and pulmonary disease).

Ability to discuss in detail how lifestyle factors, including nutrition, physical activity, and heredity, influence lipid and lipoprotein profiles.

Ability to obtain a health history and risk appraisal that includes past and current medical history, family history of cardiac disease, orthopedic limitations, prescribed medications, activity patterns, nutritional habits, stress and anxiety levels, and smoking and alcohol use.

Ability to describe the categories of participants who should receive medical clearance prior to administration of an exercise test or participation in an exercise program.

Ability to identify relative and absolute contraindications to exercise testing or participation.

Ability to discuss the limitations of informed consent and medical clearance prior to exercise testing.

Ability to obtain informed consent.

Ability to explain the purpose and procedures for monitoring clients prior to, during, and after cardiorespiratory fitness testing.

Ability to describe the purpose of testing, select an appropriate submaximal or maximal protocol, and conduct an assessment of cardiovascular fitness on the cycle ergometer or the treadmill.

Ability to locate and measure skinfold sites, skeletal diameters, and girth measurements used for estimating body composition.

Ability to describe the purpose of testing, select appropriate protocols, and conduct assessments of muscular strength, muscular endurance, and flexibility.

Ability to interpret information obtained from the cardiorespiratory fitness test and the muscular strength and endurance, flexibility, and body composition assessments for apparently healthy individuals and those with stable disease.

Ability to interpret information obtained from the cardiorespiratory fitness test and the muscular strength and endurance, flexibility, and body composition assessments for apparently healthy individuals and those with stable disease.

Ability to modify protocols and procedures for cardiorespiratory fitness tests in children, adolescents,
and older adults.

Ability to identify the components that contribute to the maintenance of a safe environment.

Ability to describe potential musculoskeletal injuries (e.g., contusions, sprains, strains, fractures), cardiovascular/pulmonary complications (e.g., tachycardia, bradycardia, hypotension/hypertension, tachypnea) and metabolic abnormalities (e.g., fainting/syncope, hypoglycemia/hyperglycemia, hypothermia/hyperthermia).

Ability to define atherosclerosis, the factors causing it, and the interventions that may potentially delay or reverse the atherosclerotic process.

The student will also develop competencies in utilizing the Excel program for basic statistical analyses, including data organization, computations, and graphing functions.

**Tentative Lecture Schedule:** Lab and lecture coincide during the semester. The schedule is outlined on a weekly basis in the Laboratory manual. Lab will meet the first week of the semester on Monday, August 23rd. If you do not attend the scheduled lab, you will not be eligible for a grade for Case Study Lab. In addition, students must participate in all labs and come dressed accordingly to receive any point for that laboratory session.

**Student Evaluation:**

1. Written Examinations (3)  
   40%
2. Practical examinations (2)  
   25%
3. Laboratory homework assignments  
   (includes quizzes)  
   25%

Research Paper (mandatory to complete course with a passing grade)  
   10%
4. Based on the percentages above, grades will be assigned as follows...

<table>
<thead>
<tr>
<th>% of Total Points</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90 - 100%</td>
<td>A</td>
</tr>
<tr>
<td>80 - 89.9</td>
<td>B</td>
</tr>
<tr>
<td>70 - 79.9</td>
<td>C</td>
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<tr>
<td>60 - 69.9</td>
<td>D</td>
</tr>
<tr>
<td>&lt;60</td>
<td>F</td>
</tr>
</tbody>
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It is not the instructor’s responsibility to compute your grade throughout the semester. To compute your grade, take your points earned for a specific part of the evaluation (exams, etc.) divided by total points possible and multiply the points allotted for that part of the course by the percentage of total point earned in that section. For example, if a student has exam scores of 75% and 82%, 75+82=157,
157/200=78.5, 40X.785=31.4. Do the same for each part of the course grade and add the parts together, that is your score out of 100%. **When you see your instructor regarding your grade for the course, you need to bring your calculated grades with you to review.**

Late assignments will **not** be accepted unless related to an excused absence with appropriate documentation and instructor notification (leave a message or email instructor before assignment is due). Lab assignments are always due 1 week after data collection unless changed by instructor. **Students with an excused absence must make up the lab within one week of the absence. Data may not be borrowed from other students for the laboratory assignments; each student must collect their own data.**

Missed examinations for a pre-approved excused examination will be given the last week of classes. Examples of excused absences are pre-approved university activities, illness and emergencies, which can be documented appropriately, and the instructor has been informed. Missed exams related to unexcused absences are not eligible for make-up. **Lab practicum exams cannot be rescheduled at any time in the semester.**

Assignments and exams will be handed back in class. If you miss the class period that assignments are returned, you will need to obtain the graded paper directly from the instructor in his/her office. Papers will not be brought to class or lab after that

**Final grades will be mailed to you if you leave a SASE with the instructor. Grades cannot be given out by phone or email.**

**Attendance Policy:** Attendance and participation in all labs is required for successful completion of this course. **Each student is allowed 1 absence, excused or unexcused. For each additional absence, the student will lose 1% off their final grade.** For example, a final grade of 80% would be reduced to 77% for 4 absences. Appropriate documentation must also be presented in order to make up examinations missed for excused absences. **Students are required to attend the ACSM lecture (not for extra credit).**

**KINE Departmental Grade Policy:** The department will not warn students nor drop students for excessive absences. **It is the responsibility of the student to complete ADDING, DROPPING or withdrawing from school within the appropriate time frame established by the University Registrar (deadlines to be found in the Schedule of Classes). Any student that does not officially drop the class by the appropriate drop dates will be given an “F” for the course.**

**Americans with Disability Act:** "If you require accommodation based on disability, I would like to meet with you in the privacy of my office the first week of the semester to be sure you are appropriately accommodated."

**Timeline for Grade Grievances:** The student has one calendar year from the date a grade is assigned to initiate a grievance. The normal academic channels are 1) Department Chair, 2) Academic Dean, and 3) the Provost.

**Student Support Services:** The University supports a variety of student success programs to help you connect with the University and achieve academic success. They include learning assistance,
developmental education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally, or socially should contact the Office of Student Success Programs at 817-272-6107 for more information and appropriate referrals.

**Academic Dishonesty:** It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University. “Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.” (Regents Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22).

**Bomb Threats:** If anyone is tempted to call in a bomb threat, be aware that UTA will attempt to trace the phone call and prosecute all responsible parties. Every effort will be made to avoid cancellation of presentations/tests caused by bomb threats. Unannounced alternate sites will be available for these classes. Your instructor will make you aware of alternate class sites in the event that your classroom is not available.

**Changes in Course Content/Format:** As the instructor for this course, I reserve the right to make changes in course content, as I deem appropriate and necessary.

**No cell phones allowed in lab or class unless they are turned off.**