

**SAM HOUSTON STATE UNIVERSITY**  
**Department of Health and Kinesiology**  
**Spring 2008**

**COURSE:** KIN 477 - Principles of Exercise Testing & Prescription  
**INSTRUCTOR:** Dr. Gary Oden  
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**TEXTS:** Nieman, D. Fitness and Sports Medicine. McGraw Hill, 2007

**COURSE GOALS** To provide the student with the theoretical background and practical experience necessary for:

1. The safe and scientific evaluation of physical fitness, particularly as it relates to health and disease.
2. The prescription of exercise for disease prevention and rehabilitation.
3. Successful completion of ACSM Health Fitness Instructor certification.

**GENERAL COURSE OBJECTIVES** Upon successful completion of this class each student will be able to:

1. List and discuss qualifications for ACSM certification of exercise professionals.
2. List, describe, and discuss major cardiovascular risk factors and the influence of exercise on each.
3. Describe the pathophysiology of cardiovascular disease and the potential influence of exercise on this process.
4. Describe the pathophysiology of obesity and its role in cardiovascular risk.
5. Outline the procedures for conducting a graded exercise test (GXT).
6. Describe the physiological mechanisms underlying physical training adaptations and acute responses to exercise testing.
7. Calibrate equipment used for fitness assessment and the GXT.

**"Students with a disability which affects their academic performance are expected to arrange for a conference with the instructor in order that appropriate strategies can be considered to ensure that participation and achievement opportunities are not impaired." The physically impaired may contact the Director of the Counseling Center, ext. 41720.**

8. Explain the hemodynamic principles underlying hypertension and the blood pressure response to exercise.
9. Conduct submaximal and symptom-limited maximal GXT's utilizing various protocols and modalities.
10. Conduct assessments of muscle strength, endurance, and flexibility.
11. List important lipid risk factors and describe methodology for assessment.
12. Explain various methodologies for the assessment of body composition and accurately measure body composition using the skinfold, bioelectrical impedance and hydrostatic techniques, and the Bod Pod.
13. Prescribe safe and effective individual exercise to promote physical fitness of the apparently healthy and those with known cardiovascular disease.

### **COURSE REQUIREMENTS**

1. Attendance is expected. Excessive absences will affect your final grade.
2. Timely completion all labs, assignments, and other required work. Any required work not completed prior to the due date will not be accepted.
3. Participate in the various laboratory experiences designed to promote proficiency in fitness assessment procedures.
4. Develop an exercise prescription based on the fitness assessment of a fellow classmate.

### **EVALUATION**

1. Total points available:

<u>Assignment</u>	<u>Points</u>
Labs	200
Mid Term Exam	200
Final Exam	<u>200</u>

Total Points 600

2. Final grade based on the following:
  - 540 or above = A
  - 480-539 = B
  - 420-479 = C
  - 360-419 = D
  - Below 390 = F

### ***STUDENT ABSENCES ON RELIGIOUS HOLY DAYS POLICY***

*Section 51.911(b) of the Texas Education Code requires that an institution of*

*higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.*

*University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). This request must be made in the first fifteen days of the semester or the first seven days of a summer session in which the absence(s) will occur. The instructor will complete a form notifying the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed.*