KINE 5550

Exercise Technology II: Applied Exercise Testing and Interpretation

Ex Tech II

Spring 2017

Prerequisites:  KINE 5500 – Exercise Technology I

Syllabus revised: January 2016

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**5550 TEXTBOOKS**

**ACSM's Guidelines for Exercise Testing and Prescription,** Lippincott, Williams & Wilkins, 9th Edition, 2013, ISBN 978-1-60913-955-1

**COURSE DESCRIPTION**

This course has been designed in conjunction with the KINE 5551 laboratory experience to develop the knowledge, skills and abilities to function as an exercise professional in fitness and clinical exercise settings.  This class provides practical experience in health and fitness testing and evaluation including; cardiorespiratory, muscular fitness, body composition and flexibility testing, interpretation of exercise test results, exercise prescription and health risk classification. Additionally, the course will prepare the student to take ACSM’s Exercise Physiologist certification examination. CPR certification must be current.

**Specific outcomes:**

1. Demonstrate understanding pre-test health screening to determine the appropriateness of exercise, exercise testing, and cardiovascular disease risk classification based on blood pressure, cholesterol levels, physical activity or other factors.
2. Determine a participant’s risk to ensure safe participation and determine level of monitoring/supervision in a preventive or rehabilitative exercise program.
3. Select and prepare physical fitness assessments for healthy participants and those with controlled disease.
4. Conduct anthropometric and body composition assessments.
5. Conduct and interpret cardiorespiratory fitness assessments.
6. Conduct assessments of muscular strength, muscular endurance and flexibility.
7. Determine safe and effective exercise programs to achieve health-related fitness outcomes and goals
8. Implement exercise prescriptions using the FITT principle (frequency, intensity, time, and type) for flexibility, muscular strength, and muscular endurance for apparently healthy participants based on current health status, fitness goals and availability of time.
9. Establish exercise progression guidelines for resistance, aerobic and flexibility activity to achieve the goals of apparently healthy participants.
10. Implement a weight management program as indicated by personal goals that are supported by pre-participation health screening, health history, and body composition/anthropometrics.
11. Prescribe and implement exercise programs for participants with controlled cardiovascular, pulmonary, and metabolic diseases and other clinical populations.
12. Prescribe and implement exercise programs for healthy special populations (i.e., older adults, youth, and pregnant women).
13. Optimize adoption of and adherence to exercise programs and other healthy behaviors by applying effective behavioral and motivational strategies.
14. Provide educational resources to support clients in the adoption and maintenance of healthy lifestyle behaviors.
15. Know how to create and disseminate an effective injury prevention program and ensure that emergency policies and procedures are in place. Understand basic treatment for common injuries seen in a exercise facility
16. Understand the basic legal requirements for exercise testing including: informed consent; HIPAA requirements; individual liability; personnel policies and client privacy.

**Grading Scale**

Your course grade will be determined your quiz grades and your final exam.  The quizzes are worth 60% of your final grade, your final exam is worth 40% of your final grade. Grading Scale: A = > 90%; B = 89.9% - 80%; C = 79.9% -70%

**Quizzes and Homework – 140 points worth 50% of your final grade**

There will be 13 quizzes and one homework assignment given throughout the semester, each worth 10 points.  The quizzes will be based on ACSM's certification guide and the practice questions for the ACSM’s Exercise Physiologist - Certified certification.  This will be discussed in class.  The quizzes will be comprehensive in that they will cover topics you have had during your undergraduate studies.  The best method to prepare for the quiz is to review the specific section of the Certification Review for the quiz.  This will be announced before the quiz is given.

**Final Exam - 100 points worth 50% of your final grade.**

The final exam will cover all aspects of ACSM's exam to become an Exercise Physiologist - Certified

**Class Policies**

Attendance: Attendance is required.   Excused absences as defined in the Student Policy eHandbook, [www.auburn.edu/studentpolicies](http://www.auburn.edu/studentpolicies).

Accommodations: Students who need accommodations are asked to electronically submit their approved accommodations through AU Access and to arrange a meeting during office hours the first week of classes, or as soon as possible if accommodations are needed immediately. If you have a conflict with my office hours, an alternate time can be arranged. To set up this meeting, please contact me by e-mail. If you have not established accommodations through the Office of Accessibility, but need accommodations, make an appointment with the Office of Accessibility, 1228 Haley Center, 844-2096 (V/TT).

Honesty Code: Students are expected to do their own work and cheating will not be tolerated.  Please see University policies at [https://sites.auburn.edu/admin/universitypolicies/default.aspx](https://cas.auburn.edu/owa/redir.aspx?C=bc06a9c32636407d8a7ce9284b94e692&URL=https%3a%2f%2fsites.auburn.edu%2fadmin%2funiversitypolicies%2fdefault.aspx)

 **Course content outline:**

Week 1 – 11 Jan Syllabus & introduction

Week 2 – 18 Jan Risk Classification & TiegrFit safety; Quiz #1

Week 3 – 25 Jan          Normal ECG; Quiz #2

 Week 4 – 2 Feb          TigerFit reports; Quiz; #3

 Week 5 – 9 Feb         Metabolic calculation; Quiz #4

Week 6 – 16 Feb          No class; Homework due on Feb 15

Week 7 – 23 Feb           Aerobic Exercise Prescription; Quiz #5

 Week 8 – 2 Mar EP for weight managment; Quiz #6

Week 9 – 9 Mar           EP for muscular Fitness & Flexibility; Quiz #7

 Week 10 – 16 Mar          No Class;

 Week 11 – 23 Mar        Exercise prescription, special populations; Quiz #8

 Week 12 – 30 Mar        Environmental considerations for exercise; Quiz #9

Week 13 – 6 Apr           Clinical consideration – CVD & Pulmonary; Quiz #10

Week 14 – 13 Apr         Clinical considerations - chronic diseases; Quiz #11

Week 15 – 20 April       Program Management and safety; Quiz #12

Week 16 – 27 April            **TBD**