KINE 5550

Exercise Technology II: Applied Exercise Testing and Interpretation

Ex Tech II

Fall 2015

Prerequisites:  KINE 5500 – Exercise Technology I

Syllabus revised: August 2015

Instructor:  Dr. Jim McDonald                Email: [jrm0013@auburn.edu](mailto:jrm0013@auburn.edu)

Graduate Assistant: Mynor Hernandez Email: [mgr0018@auburn.edu](mailto:mgr0018@auburn.edu)

Office: Room 169, Kinesiology building, 301 Wire Road

Office Hours: Tues & Thurs 1:00 – 3:00 pm

Office Phone:  844-1922

**5550 TEXTBOOKS**

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

**Supplemental Textbooks:**

**ACSM’s Health-Related Physical Fitness Assessment Manual**, Lippincott, Williams & Wilkins, 4th Edition, 2013, ISBN 978-1-4511-1568-0

**ACSM’s Certification Review**, Lippincott, Williams & Wilkins, 4th Edition, 2013, 978-1-60913-954-4

**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 either ACSM’s Certified Exercise Physiologist or Clinical Exercise Physiologist examination. CPR certification must be current.

**Specific outcomes:**

1. Perform a pre-participation health screening including review of the participant’s medical history and knowledge, their needs and goals, the program’s potential benefits and additional required testing and data.
2. 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.
3. Evaluate the participant’s risk to ensure safe participation and determine level of monitoring/supervision in a preventive or rehabilitative exercise program.
4. Select and prepare physical fitness assessments for healthy participants and those with controlled disease.
5. Conduct anthropometric and body composition assessments.
6. Conduct and interpret cardiorespiratory fitness assessments.
7. Conduct assessments of muscular strength, muscular endurance and flexibility.
8. Implement cardiorespiratory exercise prescriptions using the FITT principle (frequency, intensity, time, and type) for apparently healthy participants based on current health status, fitness goals and availability of time.
9. 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.
10. Establish exercise progression guidelines for resistance, aerobic and flexibility activity to achieve the goals of apparently healthy participants.
11. Implement a weight management program as indicated by personal goals that are supported by pre-participation health screening, health history, and body composition/anthropometrics.
12. Prescribe and implement exercise programs for participants with controlled cardiovascular, pulmonary, and metabolic diseases and other clinical populations.
13. Prescribe and implement exercise programs for healthy special populations (i.e., older adults, youth, and pregnant women).
14. Optimize adoption of and adherence to exercise programs and other healthy behaviors by applying effective behavioral and motivational strategies.
15. Provide educational resources to support clients in the adoption and maintenance of healthy lifestyle behaviors.
16. Create 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
17. Understand the basic legal requirements for exercise testing including: informed consent; HIPAA requirements; individual liability; 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 – 120 points worth 50% of your final grade**

There will be 12 quizzes 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 Health/Fitness Specialist 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 a Certified Exercise Physiologist

**Class Policies**

Attendance: Attendance is required and quizzes will not be given outside of class unless there is an excused absence.   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 – 19 Aug              Syllabus & introduction

Week 2 – 26 Aug              Health Screening & Risk Classification

Week 3 – 2 Sept                **TigerFit** Forms

 Week 4 – 9 Sept                **TigerFit** Reports

 Week 5 – 16 Sept             Health–related Pharmacology

Week 6 – 23 Sept              Normal Electrocardiogram

Week 7 – 30 Sept              Abnormal ECG

 Week 8 –  7 Oct                Abnormal ECG

Week 9 – 14 Oct               **No class**

 Week 10 – 21 Oct             Metabolic Calculation

 Week 11 – 28 Oct            Clinical considerations - CVD

 Week 12 – 4 Nov             Clinical considerations - CVD

Week 13 – 11 Nov            Clinical consideration - Metabolic diseases

Week 14 – 18 Nov           Clinical considerations - other chronic diseases

Week 15 – 23 Nov            **Thanksgiving**

Week 16 – 30 Nov            **TBD**