

**DEPARTMENT OF Kinesiology**  
**KINE 5550 & 6550**  
**EXERCISE TECHNOLOGY II**  
**Spring 2012**

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**Office: 2092 – TigerFit Lab**

**2129 – Muscle Physiology Lab**

**Office Hours: By Appointment**

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## **COURSE DESCRIPTION**

This course continues to develop the knowledge, skills and abilities (KSAs) for exercise testing and prescription that were introduced in Exercise Technology I (KINE 5500/6500). Course topics will address special considerations for pre-exercise health evaluations, fitness testing techniques and procedures, data collection, and data interpretation in healthy and clinical populations. You will apply the techniques and procedures learned in KINE 5500/6500 as part of the **TigerFit** health & fitness assessment program.

The **TigerFit Program** has been developed to serve our community by providing comprehensive health & fitness assessments for Auburn University faculty and staff, alumni, members of local running and cycling clubs, and citizens in the surrounding communities.

## **COURSE OBJECTIVES**

**After this course, students will be able to:**

1. Demonstrate the ability to identify contraindications for exercise testing and participation, stratify individuals based on their cardiovascular disease risk and select appropriate assessment strategies from pre-exercise health appraisal instruments
2. Demonstrate the ability to measure and interpret heart rate, blood pressure, ECGs, RPE, at rest and during exercise
3. Demonstrate the ability to conduct a graded exercise test, including knowing when to appropriately terminate the test and monitor an active cool down.
4. Demonstrate the ability to assess and interpret measures of pulmonary function, cardiovascular fitness, body composition and musculoskeletal fitness in healthy and clinical adult populations
5. Identify abnormal ECGs, particularly common dysrhythmias and conduction disturbances
6. Develop individualized exercise prescriptions from health and fitness assessment results
7. Discuss results and exercise prescription recommendations with clients undergoing health and fitness assessments in the **TigerFit Program**

8. Demonstrate an understanding of program administration fundamentals, including: 1) a basic knowledge of the health & fitness industry; 2) how to develop, measure, and assess program outcomes, and; 3) how to develop, maintain and evaluate program quality

## COURSE REQUIREMENTS

### Preparation:

You are expected to keep up with all of the assigned readings and course notes in order to be prepared to discuss class topics and practice skills. You must provide a copy of your current CPR certification card by 15 February in order to participate in the **TigerFit Program**.

### Attendance:

It is critical that you attend each class session and are punctual. Your attendance in this class is mandatory. During the first few weeks of this course you will be developing and practicing the skills you will need to competently perform the health & fitness assessments in the **TigerFit Program**. During a majority of the semester, your presence in each class is required because you will be responsible for collecting data in some aspect of the assessment process (e.g., serving as a client's host, conducting GXTs, measuring body composition, strength, endurance & flexibility, etc). Everyone involved with these assessments is counting on you to do your job. If you have to miss class for any reason, you are required to inform me at least 24 hours in advance. If the absence is due to an emergency, I expect you to inform me as soon as possible. If the absence is a documented excused absence it will not count against your grade. Excused absences are defined in the Tiger Cub Student Handbook. **Twenty five points (-25 pts), ¼ letter grade, will be deducted from your course point total for an unexcused absence from class – unless it is a scheduled TigerFit date. Fifty points (-50 pts), ½ of a letter grade, will be deducted from your course point total for an unexcused absence from a TigerFit session.** Four unexcused absences will result in an FA for the class. For the **TigerFit** session you are expected to be on time and ready to go. If you are more than 5 minutes late you will lose 25 points from you grade.

### Presentation:

During **TigerFit** session you are expected to wear khaki slacks, or skirt for ladies. You will be given a **TigerFit** shirt to wear to the scheduled health & fitness assessments. In the case that inappropriate attire is worn on a **TigerFit** testing date, you will be asked to leave and return only after you change into appropriate attire.

**Accommodations:** Students who need accommodations are asked 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>

### Course Schedule:

The course schedule including reading assignments will be posted to Blackboard. You are expected to review the schedule and read ahead for class assignments.

## TEXTBOOKS

**ACSM's Health-Related Physical Fitness Assessment Manual**, Lippincott, Williams & Wilkins, 3<sup>rd</sup> Edition, 2007, ISBN 0-7817-7549-6

**Advanced Fitness Assessment and Exercise Prescription**, Vivian Heyward, Human Kinetics, 6<sup>th</sup> Edition, 2010, ISBN 978-0-7360-8659-2

**Practical ECG for Exercise Science and Sports Medicine**, G. Whyte and S. Sharma, Human Kinetics, 2010, ISBN 978-0-7360-8194-8

### Supplemental Textbook:

**ACSM's Guidelines for Exercise Testing and Prescription**, Lippincott, Williams & Wilkins, 8<sup>th</sup> Edition, 2009, ISBN 0-7817-6903-7

**ACSM's Certification Review**, Lippincott, Williams & Wilkins, 3<sup>rd</sup> Edition, 2009, ISBN 0-7817-6901-3

**ACSM's Resource Manual for Guidelines for Exercise Testing & Prescription**, Lippincott, Williams & Wilkins, 6<sup>th</sup> Edition 2009, ISBN 0-7817-6906-8

## EVALUATION

### Overview:

Your course grade will be determined from the total number of points you earn relative to the 600 total points available to earn in the course. In order to receive an “A”, you must earn  $\geq 90\%$  of the total points. In order to receive a “B”, you must earn between 80 - 89% of the total points. In order to receive a “C”, you must earn between 70 - 79%.

### Quizzes – 200 points

During the semester there will be of the course there will be 10 quizzes given, each worth 20 points. The quizzes will focus on procedures and information you need to know to perform your job during the **TigerFit** sessions and to help prepare you for the ACSM HFS exam. The quizzes will cover the specific topics of a previous lesson.

### TigerFit Lab Performance - 200 points

**TigerFit** testing dates are scheduled on 8 weeks throughout the summer semester. Each weekly evaluation will be worth 25 points. You will be evaluated during the **TigerFit** sessions on professionalism, competency in assigned duties and teamwork. You will be evaluated using a standardized evaluation form posted on *Blackboard*. You should recognize that the grading for each of these areas is somewhat subjective. Therefore, you will have the opportunity to review and discuss your current weekly evaluation form during the week following each evaluation. Weekly evaluation scores will be counted towards your overall course grade one week after the evaluation date (immediately after you have been able to review and discuss your scores with the instructor). Areas that will be evaluated are:

### Professionalism & Competency

You are expected to be punctual, come to class prepared, dress appropriately and interact professionally with the **TigerFit** clients. Your ability to explain testing procedures (e.g., explaining why the test is being performed, instructions for completing the tests, what you expect from the client, what they can expect from you during the test, importance of their test results and how they will be used in exercise prescription) will be evaluated. In addition, you should work with clients in a friendly, appropriate and courteous manner. This includes greeting clients and helping clients with any questions or concerns they might have.

### **Teamwork**

You will be evaluated on their ability to work with your peers. Special attention will be given to your ability to work with classmates assigned to or working at the same testing station. This includes preparing the station for client assessment, collecting and recording client data and station clean-up.

### **Report Preparation - 200 Points**

You will be responsible for accurately recording and interpreting client results during report generation. Each weekly report is worth 25 points. You will be graded on their ability to manage data, calculate and record health estimates from physiologic measurements (e.g., pulmonary function results, skin fold, hydrostatic weighing results, musculoskeletal assessment scores, cardiovascular responses to exercise, blood sample reports) and accurately record the results on client report forms. You will prepare the client's **TigerFit** report based on a template provided on Blackboard. You are expected to input the client's data correctly and ensure the report accurately reflects the results. Additionally, you will be asked to review the exercise prescription and make recommendations