

College of Charleston
EXSC 210 Concepts of Fitness Assessment and Exercise Prescription

Spring 2015

Time & Place: Tuesdays and Thursdays 9:25- 10:40 A.M.
Physical Education Center 117

Instructor: Larry "Bucky" Buchanan

Office Hours: Tuesdays and Thursdays 2:00- 4:00 PM or by appointment

Office: George Street Fitness Center Office

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Prerequisites: None

Grading: A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F

Evaluation Scale (Implemented 2006-2007):

A 90-100% A- 88-89% B+ 85-87% B 80-84% B- 78-79% C+ 75-77% C 70-74%
C- 68-69% D+ 66-67% D 64-65% D- 62-63% F 0-61%

Course Description: This course is designed to give the student an initial fitness assessment and exercise prescription experience. Basic concepts of assessment and principals of physical training will be covered. Students will implement an individual training program and demonstrate proficiency in assessment techniques of various skill and health-related fitness-related components.

Course Text:

Required

Liguori, G., Dwyer, G. B., Fitts, T. C., & Lewis, B. (Eds.). (2014). ACSM's Resources for the health fitness specialist. Champaign, IL: Human Kinetics.

Supplemental

Coburn, J. W. & Malek, M. H. (Eds.). (2012). Essentials of personal training. Champaign, IL: Human Kinetics.

Pescatello, L. S., Arena, R., Riebe, D., & Thompson, P. D. (Eds.). (2014). ACSM's Guidelines for exercise testing and prescription. Champaign, IL: Human Kinetics.

Course Objectives:

Competencies and educational opportunities within the course are designed to prepare the student to:

1. Compare and contrast the components of physical fitness to those of skill-related fitness.
2. Identify the components of health-related physical fitness and describe the health benefits of a comprehensive fitness program as well as the health risks associated with inactivity.
3. Assess and evaluate fitness components using appropriate tests and observations.
4. Demonstrate the ability to collect, analyze, interpret, and apply physiological assessment data to the test subject.
5. Design an individual exercise program to promote a healthy lifestyle.
6. Apply basic concepts of anatomy and physiology as they relate to various components in a fitness regimen including that of resistance training and conditioning.
7. Evaluate appropriate exercises, exercise equipment, and apparel.
8. Identify the strategies for exercise program adherence including specific personal goals, time, dates, social support, and reinforcement strategies.

Tentative Requirements:

- 60% Examination- 3 Tests (100 points each) + 1 Final Exam (150 points)
- 26.67% 4 Lab Assignments plus individual exercise prescription (50 points each)
- *13.33% Quizzes and/or reading assignments (100 points)

Total Possible Points: 750 Points

*Quiz totals can vary.

Assignments:

Examinations- Each Test is worth 100 points. The Final Exam on Thursday, April 30 from 8- 11:00 AM is worth 150 points.

Test 1- Foundational Materials (Bioenergetics, Structure and Function of the Muscular, Nervous, and Skeletal system, Biomechanics the Basics)

Test 2- Muscular Fitness and Resistance Training: Chapters 4 and Lab 2

Test 3- Cardiovascular Training: Chapters 3 Labs 3 and 4

Final Exam- Cumulative

Lab Assignments- Each Lab Report is worth 50 points. Lab reports will be handed in at the beginning of class on their relative due date. 25 points for each lab are towards successful completion of the lab. The remaining 25 points are geared towards the analysis and prescription of each individual lab.

Lab 1- Par-Q, Health Questionnaires, Dynamic Warm-Up, and Presidential Fitness Test*

Lab 2- Muscular Fitness Assessment

Lab 3- Body Composition Testing
Lab 4- Cardiovascular Testing

Projects:

Lab projects provide the individual learner an opportunity to put into place the skills and concepts covered in class. Students must work on projects individually. Individual exercise prescriptions take place through each lab. Labs will be explained thoroughly in class and prescriptions will demonstrate your acquired knowledge through the semester.

Quizzes/Reading Assignments:

Students will take ten 10-point quizzes throughout the semester in order to assess their understanding of class lectures and assigned readings. Quizzes will not be announced so students should be prepared daily for a quiz. Quizzes will be given at the discretion of the instructor at the beginning of the class periods. Should you miss a quiz due to an excused tardiness or absence; students will have the opportunity to make-up the quiz within a reasonable amount of time at the convenience of the instructor and student. **It is the student's responsibility to contact the instructor in regards to scheduling a make-up.**

Course Content:

Unit 1- Foundational Material

- A. Fitness Defined
- B. Assessment
- C. Bioenergetics
- D. Biomechanics
- E. Muscle Physiology
- F. Risk Stratification

Unit 2- Muscular Fitness

- A. Resistance Training Adaptations

Unit 3- Cardiorespiratory Training

- A. Cardiorespiratory Adaptations

Attendance:

Attendance is critical. Attendance during labs is mandatory. Failing to attend a scheduled lab session will result in a loss of points for the lab. Lab reports will not be accepted from students that did not attend specific lab sessions. If a student is absent during a quiz, a grade of zero ("0") will be given for said quiz with no make-up allowed. See me prior to the start of this course if you participate in an activity that may cause a problem with attendance. Refer to the current Student Handbook for information on student responsibility regarding absences.

Tardiness to class is not acceptable. Habitual tardiness (3+) will be handled on an individual basis. Please refer to the current copy of the Student Handbook for proper guidelines for students regarding classroom behavior and expectations.

Electronic Policy:

We're all adults here! If you need to use your phone, please do, but be respectful to those around you and step outside. Please make sure all phones are either off or on silent. Do not use your phone in class.

Provisions for Students with Special Needs:

The College of Charleston abides by section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act that stipulates no student shall be denied access to an education "solely by reason of handicap." Disabilities covered by law include, but are not limited to: learning disabilities and hearing, sight or mobility impairments. If you have a documented disability that may have some impact on your work in this class and for which you may require accommodations, please see an administrator at the Center of Disability Service or me so that such accommodation may be arranged.

Make-Up Policy:

Make-up exams are given at the discretion of the professor and are only considered for documented and approved absences. It is the student's responsibility to contact the instructor if a make-up is necessary. Late assignments, if accepted, will be penalized 25% per day.

Honor System:

Students must do their own work. Please see the 2014-2015 Student Handbook (Academic Honor System) for a description of the College's Honor System, which is fully supported in this class.

The College of Charleston Honor System is recognized in this course. For the specific details of responsibility and penalty, see the current edition of the College of Charleston Student Handbook. Take special note of the following NEW policy concerning grades and cheating. *"Cases of suspected academic dishonesty will be reported directly to the Dean of Students. A student found responsible for academic dishonesty will receive a XF in the course, indicating failure of the course due to academic dishonesty. This grade will appear on the student's transcript for two years after which the student may petition for the X to be expunged. The student may also be placed on disciplinary probation, suspended (temporary removal) or expelled (permanent removal) from the College by the Honor Board."*

Students can find the complete Honor Code and all related processes in the Student Handbook at <http://www.cofc.edu/generaldocuments/handbook.pdf>

Tentative Schedule:

Tuesday, 1/13- Introduction to course, Begin Bioenergetics Lecture

Thursday, 1/15- Bioenergetics Continued

Tuesday, 1/20- Intro to Lab 1, PAR-Q, Health Questionnaire, and Dynamic Warm-up, ***Risk Stratification—Understanding Physical Activity (Chapter 1) and Physical Activity Preparticipation and Screening Guidelines (Chapter 2)***

Thursday, 1/22- Lab 1 Cont., Presidential Fitness Test (www.adultfitnessstest.org)

Tuesday, 1/27- Structure and Function of the Muscular, Nervous, and Skeletal Systems

Thursday, 1/29- Structure and Function of the Muscular, Nervous, and Skeletal Systems Cont.

Tuesday, 2/3- Intro to Biomechanics- The Basics

Thursday, 2/6- Intro to Biomechanics Cont.

Tuesday, 2/10- Review for Exam 1, Case Studies and Discussion

Thursday, 2/12- Exam 1

Tuesday, 2/17- Resistance Training Program Design

Thursday, 2/19- Resistance Training Program Design Cont.

Tuesday, 2/24- Resistance Training Adaptations

Thursday, 2/26- Resistance Training Adaptations Cont.

Tuesday, 3/3- Spring Break, No Class

Thursday, 3/5- Spring Break, No Class

Tuesday, 3/10- Resistance Training Exercise Techniques, Review for Exam

Thursday, 3/12- Lab 2- Muscle Fitness Testing

Tuesday, 3/17- Exam 2

Thursday, 3/19- Intro to Body Composition, Lab 3

Tuesday, 3/24- Lab 3 Cont.

Thursday, 3/26- Cardiorespiratory System and Gas Exchange

Tuesday, 3/31- Cardiorespiratory System and Gas Exchange Cont.

Thursday, 4/2- Aerobic Endurance Training Program Design

Tuesday, 4/7- Physiological Responses and Adaptations to Aerobic Endurance Training

Thursday, 4/9- Lab 4- Cardiovascular Fitness

Tuesday, 4/14- Exercise Psychology for the Personal Trainer

Thursday, 4/16- Current and Future Trends in Fitness

Review Chapters 2, 6, 8, 16, and Labs 3 and 4, Case Studies and Discussion

Tuesday, 4/21- Review for Exam 3, Case Studies, and Discussion

Thursday, 4/23- Exam 3

Tuesday, 4/28- Reading Day, NO CLASS

*****Final Exam- Thursday, April 30, 8:00- 11:00 AM*****