

**FLORIDA ATLANTIC UNIVERSITY
COLLEGE OF EDUCATION
DEPARTMENT OF EXERCISE SCIENCE AND HEALTH PROMOTION**



**PET 4550 Exercise Testing
Summer 2009**

Instructor: Robert Zoeller, Ph.D.
Office: TBD
Office Hours: Tu Th 10:30 AM – 11:30 PM and 1:30 PM – 2:30 PM,
W 11:00 AM – 1:00 PM
Phone:
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Class Hours: Tu Th 11:45 AM – 1:20 PM
Location: FL 401

If you intend to take Practicum this Fall, see Dr. Graves ASAP

Course Prerequisite

PET 4351 – Exercise Physiology & Lab or equivalent, and HSC 2110 or equivalent. A grade of C or better must have been obtained in these prerequisite courses as well as Anatomy and Physiology 1 & 2. If you do not meet these requirements, you are required to drop the course.

Course Description

A practical course in exercise test administration including program design, present health status assessment, protocols for the evaluation of cardiovascular functions, aerobic capacity, muscular fitness, pulmonary function, and body composition, basic electrocardiography, interpretation of test results, and handling emergency situations.

Required Textbooks

ACSM Guidelines for Exercise Testing and Prescription. 7th edition. Baltimore, MD: Lippincott, Williams, and Wilkins, 2005. ISBN 10: 0-7817-4506-3, ISBN 13: 978-0-7817-4506-2

Fitness Professional's Handbook. 5th edition. Champaign, IL: Human Kinetics, 2007
ISBN 10: 0-7360-6178-9, ISBN 13: 978-0-7360-6178-0

Course Objectives

At the completion of this course, each student will be able to

- 1) perform health-risk appraisals including screening and risk stratification of

- apparently healthy individuals and those with known disease
- 2) demonstrate and perform fitness tests for cardio-respiratory fitness (both maximal and submaximal), body composition, muscular strength and endurance, and flexibility for apparently healthy individuals and those with controlled disease
 - 3) demonstrate knowledge and understanding of the normal responses (heart rate, blood pressure, pulmonary ventilation etc.) to a graded exercise test
 - 4) demonstrate a basic knowledge of the effects of training, age, gender, environment, exercise modality etc., on these responses
 - 5) demonstrate competency in performing and applying metabolic calculations
 - 6) perform a clinical exercise test/stress test using different modalities
 - 7) demonstrate competency in basic ECG interpretation

Evaluation

Three (3) written/practical exams	70% of final grade*
Laboratory sessions and other assignments	30% of final grade

*Final exam is weighted two-thirds for practical exam and one third written exam. All components of the practical exam must be passed to receive a C or better for the course

Grading Scale

92.0 – 100 % = A	72.0 – 77.9% = C
90.0 – 91.9% = A-	70.0 – 71.9% = C-
88.0 – 89.9% = B+	68.0 – 69.9% = D+
82.0 – 87.9% = B	62.0 – 67.9% = D
80.0 – 81.9% = B-	60.0 – 61.9% = D-
78.0 – 79.9% = C+	< 60.0% = F

Course Requirements

- Students are expected to take quizzes and exams as scheduled. **Prior approval by course instructor is prerequisite for make-up quizzes and exams.**
- Quizzes will be based on material assigned for that particular class. If the student has read/studied the assigned material, this should represent no problem or undue hardship.
- **Instructor reserves the right to give quizzes without prior notice.**
- **Take-home assignments handed in after the due date will not be accepted.. Adequate time will be given for the completion of all assignments.**
- **Assignments not handed in will result in a deduction equal to total possible points for that particular lab or assignment.**

In compliance with the Americans with Disabilities Act (ADA), students who require special accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) located in Boca Raton - SU 133 (561-297-3880), in Davie - MOD I (954-236-1222), in Jupiter - SR 117 (561-799-8585), or at the Treasure Coast - CO 128 (772-873-3305), and follow all OSD procedures.

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty, including cheating and plagiarism, is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see

http://www.fau.edu/regulations/chapter4/4.001_Honor_Code.pdf

Bibliography

- 1) ACSM Guidelines for Exercise Testing and Prescription. 7th edition. Baltimore, MD: Lippincott, Williams, and Wilkins, 2000.
- 2) Health Fitness Instructor's Handbook. 4th edition. Champaign, IL: Human Kinetics, 2003
- 3) Rapid Interpretation of EKG's. 6th edition. Author: Dale Dubin; Tampa, FL: Cover Publishing, 2000.
- 4) Cardiac Rehabilitation, Adult Fitness, and Exercise Testing. 3rd edition. Baltimore, MD: Williams and Wilkins, 1995. ISBN # 0-683-03031-0
- 5) Exercise Testing and Exercise Prescription for Special Cases. 2nd edition. Philadelphia, PA: Lea and Febiger, 1993. ISBN # 0-8121-1440-X
- 6) Essentials of Strength Training and Conditioning. 2nd edition. Champaign, IL: Human Kinetics, 2000. ISBN # 0-7360-0089-5
- 7) Stress Testing: Principles and Practice. 4th edition. Philadelphia, PA: F. A. Davis Co., 1996. ISBN # 0-8036-0055-0.
- 8) Essentials of Cardiopulmonary Exercise Testing. Champaign, IL: Human Kinetics, 1996. ISBN # 0-87322-636-4
- 9) Exercise and the Heart. 4th edition. Philadelphia, PA: W. B. Saunders, 2000. ISBN # 0-7216-8450-5.
- 10) Clinical Electrocardiography – A Simplified Approach. 6th edition. St. Louis, MO: Mosby Inc., 1999. ISBN # 0-323-00252-8.
- 11) Clinical Electrocardiography: PreTest Self-Assessment and Review. New York, NY: McGraw Hill, Inc., 1994. ISBN # 0-07-052008-9.

PET 4550 Exercise Testing
Tentative Schedule
Summer 2009

<u>Date</u>	<u>Topic and/or Assignment</u>	<u>Reading</u>	
		<u>HFI HB</u>	<u>ACSM</u>
May 12	Introduction & orientation, syllabus, Health screening and risk stratification	Ch. 3	Ch. 2-4
May 14	Health screening and risk stratification Procedures for conducting GXT's	Ch. 5	Ch. 2-4
May 19	Procedures for conducting GXT's Criteria for test termination	Ch. 5	Ch. 2-4
May 21	Procedures for conducting GXT's Criteria for test termination	Ch. 5	Ch. 2-4
May 26	Predicting VO _{2max} from a submaximal test and review	Ch. 5	Ch. 4
May 28	Exam 1		
Jun 2	Acute responses to a GXT		Ch. 28
June 4	Acute responses to a GXT		Ch. 28
June 9	Lactate and ventilatory thresholds		
June 11	Lactate and ventilatory thresholds		
June 16	Effects of training on acute responses to a GXT		Ch. 28
June 18	VO _{2max} as a measure of aerobic fitness: determinants, limitations, and effects of gender, modes of exercise, etc.		Ch. 28
June 23	VO _{2max} as a measure of aerobic fitness etc. and review		Ch. 28
June 25	Exam 2		
June 30	ECG interpretation	Ch. 24	Dubin

July 2	ECG interpretation	Ch. 24	Dubin
July 7	ECG interpretation	Ch. 24	Dubin
July 9	ECG interpretation and review	Ch. 24	Dubin
July 14	Exam 3		
July 16	Body composition assessment	Ch. 6	Ch. 4
July 21	Tests of muscular strength, endurance, and flexibility	Ch. 8,9	Ch. 4
July 23	Review		
July 28	Exam 4		