



COLLEGE OF EDUCATION
DEPARTMENT OF EXERCISE SCIENCE AND HEALTH PROMOTION
PET 4550 Exercise Testing and Prescription
Spring 2018
(CRN 37873, Sec 001, 3 cr hrs)

Instructor: Robert Zoeller, Ph.D.
Office: Athletic Field House West – Bldg 11A – Room 123
Office Hours: Tu Th 2:00 PM – 4:30PM, W 1:00 PM – 4:00 PM
And by appointment
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Email: rzoeller@fau.edu
Class Hours: Tu Th 5:00 PM – 6:20 PM
Location: AL 189 (**Subject to change!!!**)

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 (including labs) and General Chemistry (w/lab). If you do not meet these requirements, you are required to drop the course.

Course Description

A practical course in exercise testing and programming for apparently healthy individuals and those with controlled disease 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. **10th edition**. Philadelphia PA: Wolters Kluwer Health, 2018. ISBN: 9781496339065

Exercise Testing and Prescription *A Health Related Approach*. **7th edition**. New York, NY: McGraw-Hill, 2011. ISBN: 978-0-07-337648-6.

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

Four (4) written exams	75% of final grade
Quizzes and other assignments	25% of final grade

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

- While attendance for class lecture sessions is not calculated as part of the final grade, a grade of zero will be assigned for any in-class projects missed and there will be no make-ups.
- 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.**

CLASSROOM ETIQUETTE / BEHAVIOR POLICY :

Use of electronic devices (cell phones, etc., etc.), other than laptops for note taking, is **STRICTLY PROHIBITED** as it is a distraction and just plain **RUDE**.

**HONOR CODE (4.001):**

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.”

STUDENTS WITH DISABILITIES:

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.

Counseling and Psychological Services (CAPS) Center:

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counselling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, visit the CAPS website: www.fau.edu/counseling/

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 Spring 2018

<u>Date</u>	<u>Topic and/or Assignment</u>	<u>Reading</u>
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		<u>Neiman</u>	<u>ACSM</u>
Jan 9	Introduction & orientation, syllabus, Health screening and risk stratification	Ch. 2	Ch. 2-4
Jan 11	Health screening and risk stratification Procedures for conducting GXT's	Ch. 2	Ch. 2-4
Jan 16	Health screening and risk stratification Procedures for conducting GXT's	Ch. 3	Ch. 2-4
Jan 18	Procedures for conducting GXT's Criteria for test termination	Ch. 3	Ch. 2-4
Jan 23	Procedures for conducting GXT's Criteria for test termination	Ch. 3	Ch. 2-4
Jan 25	Predicting VO_{2max} from a submaximal test and review	Ch. 3	Ch. 4
Jan 30	Exam 1		
Feb 1	Acute responses to a GXT	Assigned Reading	
Feb 6	Acute responses to a GXT	Assigned Reading	
Feb 8	Lactate and ventilatory thresholds	Assigned Reading	
Feb 13	Lactate and ventilatory thresholds	Assigned Reading	
Feb 15	Effects of training on acute responses to a GXT	Assigned Reading	
Feb 20	Effects of training on acute responses to a GXT	Assigned Reading	
Feb 22	VO_{2max} as a measure of aerobic fitness: determinants, limitations, and effects of gender, modes of exercise, etc.	Assigned Reading	
Feb 27	VO_{2max} as a measure of aerobic fitness etc.	Assigned Reading	
Mar 1	Exam 2		
Mar 6	Spring Break		
Mar 8	Spring Break		

Mar 13	ECG interpretation	Ch. 3	Appendix C
Mar 15	ECG interpretation	Ch. 3	Appendix C
Mar 20	ECG interpretation	Ch. 3	Appendix C
Mar 22	ECG interpretation	Ch. 3	Appendix C
Mar 27	ECG interpretation	Ch. 3	Appendix C
Mar 29	ECG interpretation and review	Ch. 3	Appendix C
Apr 3	Exam 3		
Apr 5	Body composition assessment	Ch. 4	Ch. 4
Apr 10	Practical session	Ch. 4	Ch. 4
Apr 12	Tests of muscular strength, endurance, and flexibility	Ch. 5	Ch. 4
Apr 17	Tests of muscular strength and endurance,	Ch. 5	Ch. 4
Apr 19	Practical session		
Apr 24	Reading Day		
Apr 26	Exam 4 (4:00 PM – 6:30 PM)		