

The University of North Carolina at Greensboro
School of Health and Human Performance
Department of Exercise and Sport Science

SYLLABUS – Spring 2004

COURSE NUMBER: ESS 669

COURSE TITLE: Advanced Exercise Prescription

CREDITS: 3:3

PREREQUISITES/COREQUISITES: Prerequisite - ESS 670 or permission of instructor.

FOR WHOM PLANNED: Graduate students working or planning to work in preventive and/or rehabilitative exercise settings.

INSTRUCTOR INFORMATION:

Paul Davis, Ph.D., HEHP 237-J, 334-3030, pgdavis@uncg.edu

Office Hours: Monday 2:30-3:30; Tuesday/Thursday 9:30-11:00; by appointment

CATALOG DESCRIPTION: Prescription of exercise for healthy, at-risk, and diseased individuals. Covers exercise prescription objectives for American College of Sports Medicine's Exercise Specialist and Health Fitness Instructor certifications.

STUDENT LEARNING OUTCOMES: On completion of this course, the student will be able to:

1. Examine major lifestyle issues that typically impair adherence to exercise training.
2. Describe and defend basic exercise prescription principles for all elements of health-related physical fitness (cardiorespiratory endurance, muscular endurance, muscular strength, flexibility, and body composition) and, keeping adherence issues in mind, develop comprehensive exercise programming for the average healthy adult.
3. Analyze acute and chronic physiological responses to exercise, as well as exercise adherence issues, of women, children, and older people and apply this knowledge to construct prudent exercise programming for these populations.
4. Describe and discuss basic pathophysiology of selected chronic conditions/diseases.
5. Analyze how side-effects of common medications and surgical treatments for selected conditions/diseases may affect exercise tolerance, safety, and adherence.
6. Evaluate a person's physical and mental capacity for exercise based on medical history, exercise test results, personal characteristics, and social/financial/environmental support.
7. Formulate reasonable fitness/health goals and design an effective exercise plan (and assist with an effective lifestyle plan) to meet such goals.

TEACHING STRATEGIES: This course will include lecture and both formal and informal presentations by the students. Some of the lecturing will be in case-study format, posing questions to the students. Case studies, journal article critiques, and field observations will be assigned to give students practical knowledge/experience. Guest speakers may be used when appropriate.

EVALUATION METHODS AND GUIDELINES FOR ASSIGNMENTS:

All items listed under *Student Learning Outcomes*, to varying degrees, are addressed in each of the following assignments.

2 written exams (20% each)	40%
General case study report*	10%
Clinical case study report/presentation*	20%
2 Professional observation reports (10% each)**	20%
Article reports/critique***	10%

*You will be assigned two separate case studies. The first will be for an apparently healthy person, the second for a special population case study to research and to prepare a treatment plan. The first assignment will include a written report. The second will require both a formal PowerPoint presentation (~20 minutes) to the class and a written report.

**You will be required to observe exercise programming in (1) a non-clinical setting and (2) a clinical setting for at least 4 hours each and write a report of your experience to include a chronology of what is observed and selected information obtained from the program's staff and patients. The setting should be independent of any job or internship that you might have presently or in the past.

***A peer-reviewed research articles that have examined the effectiveness of particular exercise training regimens shall be chosen. The article may involve either a clinical or non-clinical subject sample. A written report shall be completed.

REQUIRED TEXTS/READINGS/REFERENCES:

- American College of Sports Medicine. ACSM's Guidelines of Exercise Testing and Prescription (6th edition). Philadelphia: Lippincott Williams & Wilkins, 2000.
- Ehrman JK, Gordon PM, Visich PS, Keteyian SJ. Clinical Exercise Physiology. Champaign, IL: Human Kinetics, 2003.

ACADEMIC HONOR CODE: Every student is expected to adhere to UNCG's Academic Integrity Policy. Should students have any questions about what is or is not allowed or what the resulting penalties are, they are expected to ask the instructor or review the Policy at <<http://www.uncg.edu/saf/studiscp/Honor.html>>.

ATTENDANCE POLICY: Class participation is an integral part of this course. Attendance is expected. Students are expected to notify the instructor before class if they cannot attend. A grade of zero will be assigned for any missed/late exam or assignment unless prior arrangements have been approved by the instructor.

TOPICAL OUTLINE:

Tentative Course Itinerary: (A=ACSM Guidelines, E=Ehrman text)

<u>Dates</u>	<u>Topic</u>	<u>Reading (text:chapter)</u>
1/12	Introduction	
1/19	<i>MLK Day – no class</i>	
1/26	General principles, endurance training	A:7, E:7
2/2	Resistance training	On-line article*
2/9	Adherence issues	A:12, E:11
2/16	Age/gender issues	E:29-31
2/23	Cardiovascular disease and risk factors	A:8, E:9-10,12-18
3/1	Cardiovascular disease and risk factors (continued)	A:8, E:9-10,12-18
3/8	<i>Spring Break – no class</i>	
3/15	Exam 1	
3/22	Pulmonary disorders	A:9, S:19-21
3/29	Obesity, diabetes, renal disease	E:8-9,11
4/5	Pregnancy/postpartum	E:22-23
4/12	Impaired immune function, cancer	E:24-28
4/19	Musculoskeletal disorders	Reserve material
4/26	Exam 2	
5/3	<i>Case study presentations</i>	
5/12 (Wed., 3:30-6:30)	<i>Case study presentations</i>	

*ACSM Position Statement: *Progression Models in Resistance Training for Healthy Adults*
 (<http://ipsapp003.lwwonline.com/content/getfile/2320/1357/1/fulltext.pdf>).