

HPHY 101: EXERCISE AS MEDICINE, FALL 2005
DEPARTMENT OF HUMAN PHYSIOLOGY, UNIVERSITY OF OREGON
Monday-Wednesday-Friday, 8:00-8:50 AM, Willamette 100, plus weekly discussion

Instructors:	Li-Shan Chou	346-3391	340 Gerlinger	chou@uoregon.edu
	Anthony Drew	346-0275	344 Gerlinger	porly@uoregon.edu
	John Halliwill	346-5425	160 Esslinger	halliwil@uoregon.edu
	Tonya Parker	346-4164	171 Gerlinger Annex	tmorelan@uoregon.edu

Discussion Leaders:	Tal Amasay	346-0441	304c Gerlinger	tamasay@uoregon.edu
	Aditi Joshi	346-0275	330 Gerlinger	ajoshi1@uoregon.edu

SCOPE OF COURSE

Exercise as Medicine focuses on the study of exercise in health and disease. Exercise is a physical stressor causing bodily adaptations that can have beneficial or adverse effects on health. Analyses of exercise as stressor, and accompanying adaptations, require understanding the contributions of individual systems, such as nervous, cardiovascular, muscular and skeletal systems, in creating an optimal environment for human development and maintenance of function, control of disease processes, and facilitating recovery from injury.

COURSE SCHEDULE

- **Weeks 1-3 (Diabetes and Asthma; Parker) Dates: Sept 26-Oct 10**

Topics: Overview of the general adaptation syndrome; Exercise and the child and adult diabetic; Exercise and bronchopulmonary dysfunction.

Week 1 Discussion: Discussion groups DO meet during the first week of school.

Week 2 Discussion: Diabetes.

Week 3 Discussion: Asthma.

- **Weeks 3-5 (Cardiorespiratory Endurance and Cardiovascular Health; Halliwill) Dates: Oct 12-Oct 26**

Topics: What are the cardiovascular and respiratory systems? What is cardiorespiratory endurance? How do we get energy for exercise? How do we assess cardiorespiratory fitness? What is a cardiorespiratory endurance program? What is cardiovascular disease? How can cardiovascular disease be prevented?

Week 4 Discussion: Cardiovascular lab assignments, part 1

Week 5 Discussion: Cardiovascular lab assignments, part 2

- **MID-TERM EXAMINATION ON FRIDAY, OCTOBER 28, AT 8:00 AM**

- **Weeks 6-8 (Musculoskeletal System; Chou) Dates: Oct 31-Nov 14**

Topics: Exercise and musculoskeletal development; Exercise and joint diseases; Exercise and fall prevention in the elderly.

Week 6 Discussion: Review midterm answers

Week 7 Discussion: Bones

Week 8 Discussion: Arthritis

- **Weeks 8-10 (Nervous System; Drew) Dates: Nov 16-Dec 2**

Topics: Structure and function of the central nervous system; Neural pathology; The impact of exercise on the recovery of function from neurological dysfunction, including stroke.

Week 9 Discussion: There is no discussion meeting this week due to Thanksgiving break.

Week 10 Discussion: Motor control

- **FINAL EXAMINATION ON FRIDAY, DECEMBER 9, AT 10:15 AM**

Final examinations must be taken during the scheduled final examination period. University rules prohibit the early administration of final examinations. Final examination week is considered to be a part of the

regular term, and to end the term prior to its scheduled date reduces instructional days to which students are entitled.

READINGS

REQUIRED TEXT: Author: Fahey et al., Title: *HUMAN PHYSIOLOGY* (Available at Bookstore)
Website and Blackboard Readings

REQUIREMENTS

1. Mid-term and final examination as scheduled above (80% of course grade – each exam is 40%)
2. Examinations and assignments in discussion sessions (20% of course grade)
3. Participation in organized discussions

Students not attending discussions will receive no credit on missed exams.