



University of Oregon
Department of Human Physiology

Course Syllabus

HPHY 313

Human Physiology

Fall 2006

Meets: T,Th 08:30-09:50 282 Lillis

Instructors: Dr. Paul van Donkelaar
Dr. Gary Klug

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Office Hours: Dr. van Donkelaar: Th, F 12:00-1:30
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Text: *Human Physiology-An Integrated Approach-*
Silverthorn

Website URL: <http://blackboard.uoregon.edu/> Click on [Human Physiology 313 \(Fall 2006;12421\)](#)

Catalog Description: The physiology of nerve and synaptic transmission, senses, and signal processing in the central nervous system, mechanisms underlying excitable membranes and skeletal muscle contractile behavior and adaptation.

Grading Criteria: Grades will be assigned based upon the cumulative scores from a variety of evaluation methods to include:

- a. In-class Group work (Details presented the first day) regarding solutions to questions/case studies given in class (10%)
- b. Two midterm exams (October 17, and November 14th during class); 25%, 25% per exam
- c. A final exam. December 6th (35%)
- d. Group evaluation scores (5%)

Optional assignment: At the end of the term you will be given the opportunity to write an essay on a question we provide for you. If you choose to respond to it, and if your final grade lies on the border between grade breaks, and if your answer is deemed satisfactory, you will jump to the next grade category (e.g. a B to a B+ , a C- to a C etc) You are under no obligation to do this as your participation is entirely optional.

All questions concerning lab procedures schedules etc. should be directed to Jessica Meendering at 346-4295 or jgee@uoregon.edu

Course Outline

Week 1 (9/26 & 9/28)

Introduction; Neurons (Ch 8: pg 243-269)

Ion movement, action potentials,

Week 2 (10/3 & 10/5)

Cell-to-cell communication (Ch 8: pg 270-284)

Synaptic transmission, receptors.

Week 3 (10/10 & 10/12)

Central Nervous System (Ch 9: p 291-308)

Spinal cord, meninges, CSF, brain stem, cerebellum, diencephalon, cerebrum.

Week 4 (10/17 & 10/19)

Midterm 1 (Tu, Oct. 17)

Sensory Physiology (Ch 10: pg. 327-354; Ch. 13: pg. 439-445)

General properties, somatic senses, chemoreception, hearing

Week 5 (10/24 & 10/26)

Sensory Physiology (Ch 10: pg. 355-370)

Equilibrium, vision

Week 6 (10/31 & 11/2)

Motor Physiology (Ch 13: 439-451)

Motor reflexes, sensorimotor integration.

Week 7 (11/7 & 11/9)

Motor Physiology

Limb movements & eye movements

Week 8 (11/14 & 11/16)

Midterm 2 (Th, Nov. 9)

Muscle Physiology (Ch 12: pg. 413-420)
Regulation of Contractile Force

Week 9 (11/21)
Muscle Physiology (Ch 12: pg. 412-413)
Classification of Muscle Fibers

Thanksgiving (No class: Th, Nov. 23)

Week 10 (11/28 & 11/30)
Muscle Physiology (Ch. 12: pg. 411-12; 420-429)
Muscle Fatigue and Disease
Smooth Muscle

Final Exam (W, Dec. 6th, 8am)