

PSYCHOLOGY 227
BEHAVIORAL PHYSIOLOGY: BASIC SYSTEMS
LECTURE SCHEDULE
FALL, 1999

<u>DATE</u>	<u>LECTURE TOPIC</u>	<u>READINGS</u>
August 31	Basic concepts in biochemistry and cell physiology	Chapt.1,2,3,
Sept. 7	Basic concepts in biochemistry and cell physiology	Chapt. 4,
Sept. 14	Genetic coding and protein Synthesis	Chapt. 5
Sept. 21	Homeostasis and cell signaling	Chapt. 6,7
Sept. 28	Neurophysiology	Chapt. 8
Oct. 5	Hormonal Control	Chapt. 10
Oct. 12	Fall Break	
Oct. 19	Motivation, Emotion and Psychopharmacology	Chapt. 13
Oct. 26	Cardiovascular Function	Chapt. 14
Nov. 2	Gastrointestinal Function	Chapt. 17
Nov. 9	Regulation of Energy Balance	Chapt. 11,18
Nov. 16	Sensory systems and the Control of movement	Chapt.9,12
Nov. 23	Reproduction	Chapt. 19
Nov 30	Immunology	Chapt. 20

Text: Vander, Sherman, & Luciano. Human Physiology. Seventh Edition. New York, McGraw Hill, 1998.

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COURSE OBJECTIVES

The goal of this course is to peak inside the "black box"; to help the student master the function of basic body systems and principles of physiology. In addition to a systems review, we will review the basics of biochemistry, cell physiology, and genetics. In contrast to a "biological basis of behavior" course, this course will provide the student with a grounding in general physiology that emphasizes the biological nature of the human individual as a framework for understanding behavior and the interface between behavior and health. The course will cover a wide range of topics so that the student with a minimal background in biological science is made familiar with the basic concepts of modern biology. The first half of the course will concentrate on basic concepts in cell biology including hormonal and neural signaling and regulation. The second part of the course will review the classic physiological systems. The lectures will not only review the text, but also attempt to make the subject matter relevant to the clinical psychologist.

The evaluation for this course will be based upon a term paper and a written final exam. Students will be given a list of possible questions for the final exam in advance (see attached).

The paper will be a discourse on a disease or behavior disorder of the student's choice. If a behavior disorder is chosen, the student will explain how this behavior can be influenced by pharmacotherapy; if a physical disease is chosen, the student will explain how the disease can be impacted by behavior modification. In each case, the student will be expected to demonstrate a knowledge of relevant pathophysiology. The paper will be due on the last day of class.