Principles of Human Physiology
Biology 336
Fall 2009
T-TH 12:30 PM-1:45 PM.

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COURSE DESCRIPTION: Physiology is the branch of biology that attempts to explain the phenomena displayed by living things (e.g. animals, plants). This course deals specifically with human physiology, with its main purpose to increase your knowledge and understanding of how the human body works. The course is organized to progress from the cellular level, to integrated system functioning (e.g., cardiovascular, pulmonary, etc.) to the total body. Numerous examples of related pathophysiology are presented to allow you to compare and contrast "diseased" vs. normal physiological functioning, thus reinforcing conceptual understanding of the material. Hopefully, upon successful completion of this course you will come to appreciate yourself as a "wonderfully made being."

Tentative Class Schedule

Date		Topic	(Chapters from MediaPhys)	(A&P Revealed)
Sep	1	Introduction - Membrane Potential	Human Cell - #3	
	3	Action Potential – Conduction	Nerve Cells - #4	Nervous System
	8	Synaptic Transmission		
	10	Neuromuscular Junction		Muscular System
	15	Muscle I	Muscle Cells - #5	
	17	Muscle II		
	22	Muscle III		
	24	Review		
	29	Test #1 (30% of Semester Grade)		
Oct	1	Cardiovascular I: Structure & Function	Circulatory - #8	Cardiovascular System
	6	Cardiovascular II: Electrophysiology		
	8	Cardiovascular III: Hemodynamics	Circulatory - #9	
	13	Cardiovascular IV: Control		
	15	Physiology of Body Fluids		Lymphatic System
	20	Respiratory I: Structure & Mechanics	Respiratory - #10	Respiratory System
	22	Respiratory II: Gas Exchange		
	27	Respiratory III: Gas Transport		
	29	Review		
Nov	3	Test #2 (30% of Grade)		
	5	Renal I: Structure & Function	Renal - #11	Urinary System
	10	Renal II: Water Balance		
	12	Renal III: Diuretics		
	17	Endocrinology I	Endocrine - #13	Endocrine System
	19	Endocrinology II	Reproduction - #14	Reproductive System
	24	Endocrinology III		
Dec	1	Endocrine IV		
	3	Metabolism	Metabolism - #16	
	8	Metabolism		
	10	Review		

Test #3: Thurs, Dec 17th 1:00 PM -2:15 PM (30% of Grade)

GRADING POLICY:
Your final grade is based on the 3 exams, each of which counts as 30%, and on a written, thematic paper which counts for 10%. **Extra credit assignments are not accepted in this class**. Each test consists of 40 multiple-choice questions and one long (one to two pages), conceptual essay question. If you miss a test without prior consent of your instructor you will receive a 0% on that test. Tests will not be returned in-class. To view your exam you must come to the instructor's office hours. The topic for the written, thematic paper (500-1,000 words) is self-chosen, and should involve the application of the physiological knowledge gained in BIO 336 to a pertinent current event. Specific examples of potential topics will be discussed in class. The thematic paper is due on **Dec 8th.** Course objectives are listed on the class web site.

CLASS GRADES are assigned as follows:

A = 90 - 100%
B = 80 - 89%
C = 70 - 79%
D = 60 - 69%
F = 0 - 59%

(+ and - grades will be assigned to the upper and lower 2% of each range, for example, 80 and 81% = B- while 88 and 89% = B+)

BOOK: The class will be using two DVDs. The first is titled "MediaPhys 3.0: An Introduction to Human Physiology." The second is a collection of animations from Anatomy and Physiology Revealed 2.0. These are available at the SDSU Bookstore. A set of the DVDs are in the Media Room of the Library for you to view for 2 hours.

Also, past lectures have been recorded on audio CD-ROMs and can be checked out from the Media Center in the library. Most of the material is similar to what will be covered in class this semester.

ADD POLICY:
On Sept 15th, I will get an exact number of seats available in the class. The class can hold 296. Thus, if there are 292 people in the class as of Sept 15th, I will add 4 students. I will give out the add codes on Sept 15th during class. The order of adding is based on the number of units completed in your college career. Bring unofficial transcripts that list the number of units you have completed. According to SDSU regulations, Open University students (Extended Studies) are ***only*** added after all SDSU admitted students are added. If space still exists, Open University students will be added.

This is an **Explorations course in Natural Sciences.** Completing this course will help you learn to do the following with
greater depth: 1) explain basic concepts and theories of the natural sciences; 2) use logic and scientific methods to analyze
the natural world and solve problems; 3) argue from multiple perspectives about issues in natural science that have personal

and global relevance; 4) use technology in laboratory and field situations to connect concepts and theories with real-world phenomena.