

Zoology 4280: Physiology of Human Systems

Spring 2017; section 001-003

Instructor: Brian Sardella, Ph.D.

Email: bsardella@csustan.edu

Office Hours: MW 10-11:00

Office: N270

Phone: 209-667-3483

Lecture (001): MWF 9:00-9:50, N104

Lab (002): M 2:00-4:50, N229

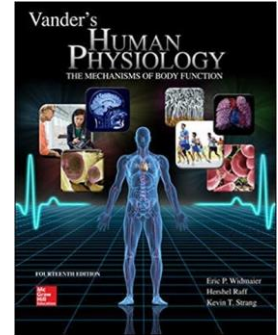
(003): W 2:00-4:50, N229

Prerequisites: BIOL 3310** and CHEM 3010/3012, or equivalents.

Recommended Materials:

Vander's Human Physiology, McGraw-Hill, 14e. ISBN 978259294099

-Available in print or eBook



Attendance: Students are expected to attend all lectures and lab sessions. Please arrive in a timely manner. Please limit getting up during lecture to emergencies only, young people **should** be able to make it 50 minutes without having to rush to the restroom ☺

You will not be awarded any points that your lab group earns in your absence. Poor attendance is highly correlated with a less than optimal final grade!

**Missing class during week one will result in your being dropped from the course to make room for anyone on the waiting list that is present.

Blackboard: We will use Blackboard heavily in this course, if you are not experienced with this site, please take some time to familiarize yourself with how it functions.

- 1) Lab Safety Course: You will be assigned the BioLab safety course on Blackboard (2016-2017-BioLabSafety: BioLabSafety). **If this is on your course list, it must be completed with a 100% score by February 2nd or you will be dropped from the course!**
- 2) All lab assignments will be facilitated by BlackBoard. Lab exercises and reports can be downloaded and turned in under 'assignments' on the course page.
- 3) Lecture slides will be posted as a pdf file FOLLOWING each lecture session.

Exams: There will be 650 points available via exams. Five 100 point in-class exams will be given. These exams will focus on problem solving and short descriptive essay questions. There will also be a 150 Point cumulative final given during finals week that will tie in the various organ systems and focus on how whole body physiology integrates.

*****NO MAKEUP EXAMS WILL BE GIVEN*****

You must have a serious and compelling reason that can be documented in order to miss an exam, should this occur, the student and professor will develop a plan of action that best suits the circumstances of the absence.

Lab: Lab meets once per week and attendance is mandatory. Missing lab will result in a zero for that week. You will be associated with a group of three for the entire lab, and all assignments will be turned in as a group. Lab exercises are available on BlackBoard (Section 002/003) for download and must be turned in electronically; no paper lab reports will be accepted. Final Lab reports are due posted on Bb by midnight on Fridays. The lab report logistics will be covered during an orientation on the first day. Each lab report is worth 10 points. The final score for lab will be based on a percentage of total points/2, for a maximum of 50 points possible. ALL assignments are subjected to anti-plagiarism software when submitted.

Research Project: There will be a 50-point group lab research project due at the end of the term. This project will give students an opportunity to use the tools available within the physiology lab to design, set up and conduct their own research. Our final day of lab will be a poster session (May 15/17), where peer review will be given and each group will briefly discuss their work. More information will be given in lab.

Evaluation:

Five Exams (100 each)	500
Final Exam	150
Group Lab Reports (% of total/2)	50
<u>Research Project</u>	<u>50</u>
Total Cumulative Points:	750

Grading: A percentage of total points will be calculated, and the following scale used:

A: 100-93; **A-:** 92-90; **B+:** 89-87; **B:** 86-83; **B-:** 82-80; **C+:** 79-77; **C:** 76-73; **C-:** 72-70; **D+:** 69-67; **D:** 66-60; **F:** 59-0

- The CR/NC grading option is not approved for this course; only letter grades can be earned.

Course Drop and Withdrawal Policy

Withdraw after the census date can only be done with a documented serious and compelling reason. The Department of Biological Sciences chair will not sign a withdrawal form otherwise, regardless of the instructor's view. It is highly recommended that if you wish to drop the class, you do so by the census date! A grade of "incomplete" will not be considered under any circumstance, you may petition for a withdrawal if a serious and compelling reason is given.

Academic Dishonesty: There will be a zero-tolerance policy for academic dishonesty, this includes, but is not limited to, cheating, plagiarism, and use of course materials in an inappropriate manner such as posting online. Violating this policy will result in a failing grade for the course and referral to the Student Judicial Affairs Office. See University code of conduct for more info:

<http://www.csustan.edu/judicial-affairs/student-responsibilities>

Tentative Schedule:

<u>Date</u>	<u>Day</u>	<u>Lecture</u>	<u>Lab</u>
27-Jan	F	Course Introduction	
30-Jan	M	Homeostasis	Intro to physiological study and BIOPAC Lab Orientation
1-Feb	W	Membrane Transport	
3-Feb	F	Enzyme Review	
6-Feb	M	Energy and Metabolism	Membrane Transport
8-Feb	W	Energy and Metabolism	
10-Feb	F	EXAM I	
13-Feb	M	Chemical messaging	Autonomic Nerves: The sympathetic response
15-Feb	W	Nerves	
17-Feb	F	Nerves	
20-Feb	M	Nerves	Senses and Reflexes; Reaction time
22-Feb	W	Sensory	
24-Feb	F	Muscle and Movement	
27-Feb	M	Muscle and Movement	Muscle Physiology; EMG
1-Mar	W	Muscle and Movement	
3-Mar	F	EXAM II	
6-Mar	M	Cardiovascular	Intro to Cardiovascular Physiology
8-Mar	W	Cardiovascular	
10-Mar	F	Cardiovascular	
13-Mar	M	Cardiovascular	EKG and Blood Pressure
15-Mar	W	Cardiovascular	
17-Mar	F	Cardiovascular	
20-Mar	M	<i>Spring Break-No Classes</i>	
22-Mar	W		
24-Mar	F		
27-Mar	M	Pulmonary	Spirometry and Acid Base Physiology
29-Mar	W	Pulmonary	
31-Mar	F	<i>Cesar Chavez Day-No Class</i>	
3-Apr	M	Pulmonary	4280 Project Workshop
5-Apr	W	Pulmonary	
7-Apr	F	EXAM III	
10-Apr	M	Kidneys	Renal Salt and Water Balance "Pee Lab"
12-Apr	W	Kidneys	
14-Apr	F	Kidneys	
17-Apr	M	Kidneys	Project
19-Apr	W	Digestion	
21-Apr	F	Digestion	

24-Apr	M	Digestion	Project
26-Apr	W	Digestion	
28-Apr	F	EXAM IV	
1-May	M	Endocrine	Project
3-May	W	Endocrine	
5-May	F	Metabolism	
8-May	M	Metabolism	Exercise Physiology Lab
10-May	W	Metabolism	
12-May	F	Medical	
15-May	M	Medical	Poster Session
17-May	W	EXAM V	
Final Exam May 22 at 8:30 am			

Don't Fall Behind! This is a difficult course due to the material, and it builds on itself as we go day by day, therefore, it is highly recommended that you study the material from one lecture PRIOR TO THE NEXT. Skipping lectures, or putting off studying will result in you getting lost very quickly.

****Make sure you have a reasonably good grasp of the material in the prereq courses; the approach in 4280 assumes you understand cell/molecular biology, general chemistry, and organic chemistry at a high level.**

If you keep up with the material, you will do much better and enjoy the course much more!!

YOU are responsible for YOUR education, but do not hesitate to get help when needed... Good Luck!