

# Zoology 2235: Human Physiology

## Spring 2018

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### Required Material

Anatomy and Physiology. This is an open source textbook available to view online or download (for free) as a PDF here: <https://openstax.org/details/books/anatomy-and-physiology>

You may also purchase a copy in the university bookstore or order a hard copy online.

Publisher: OpenStax College; 1<sup>st</sup> edition (Jan. 1. 2013)

ISBN-10: 1938168135

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### Recommended Texts/Materials

Anatomy and Physiology student supplementary materials

<https://openstax.org/details/books/anatomy-and-physiology#student-resources-section>

Pocket Companion to Guyton and Hall Textbook of Medical Physiology, 13 ed. (Guyton Physiology) 13<sup>th</sup> edition (2015)

### Course Description

Zoology 2235 is a detailed study into the functions of the human body. This course covers physiological systems with extensive detail regarding metabolism, nerves, muscle, cardiovascular, respiratory, immune, digestive and urinary functions. This course is designed for kinesiology students and students interested in entering the nursing program so BIOL 1050 or 1010/1020 and C or above in ZOOL 2250 are prerequisites. Physiology is a challenging subject so students should be prepared to spend a significant amount of time outside of class learning the course material (e.g. reading, reviewing notes, homework, etc.).

### Course Objectives

The objective of this course is to familiarize students with the basic principles and concepts of human physiology, encourage intellectual interactions, teach physiological experimentation, and promote good laboratory skills. Thus, at completion of this course students should:

- 1) Have a strong understanding of the principles of human physiology such that they can describe how the body works from the molecular level to the whole body.
- 2) Be able to describe and understand the major functions of the nervous, endocrine, muscular, cardiovascular, immune, respiratory, digestive, urinary, and reproductive systems (including their roles in maintaining homeostasis).

- 3) Be able to use critical thinking skills to apply physiological principles to understand disease and novel situations.
- 4) Have the laboratory skills necessary to perform experiments in physiology.

### **Course Information**

Course materials, including lecture slides, scores, etc. will be posted online. Pertinent course information such as lecture slides and course announcements will be posted on Blackboard. Scores/grades will be posted on Blackboard **only**, and will not be provided via email or other means. It is the student's duty to check Blackboard and their email for course information and homework.

### **Lectures**

Lectures are designed with the course objectives in mind. Lectures will begin promptly at the start of class time. Students are expected to act in a professional manner towards the professor and other students at all times during lecture. This means that students should arrive to class on time, turn off their cell phones, and refrain from talking during lecture or being disruptive in any manner. The use of audio and/or video recorders or cameras (including cell phone cameras) is **not** permitted during lecture. An exception is made for students who are registered with Disability Resource Services and are approved for this accommodation (see below).

Regular attendance in lecture is essential to student success in this course. Attendance entails both your physical presence and your attention. If an absence is unavoidable, it is the student's responsibility to notify the professor as soon as possible. If a student is absent, the student (**not** the instructor) is responsible for all information and material missed. Attendance will be taken throughout the course. Attending class is highly recommended as missing classes results in poor performance in the course.

### **Laboratory**

Students are required to attend their scheduled section of lab. Please see the separate lab syllabus for your lab section for details on lab procedures, policies, and grading.

### **Exams**

There will be three lecture exams (100 points each) and one final exam (150 pts). Exam question formats may include, but are not limited to true/false, multiple choice, short answer, and short essay. You will be required to use a Scantron for exams. It is the student's responsibility to bring a Scantron form **882E** and pencil to each lecture exam. No exams will be handed out after the first student has finished the exam.

**There will be no make-up exams!** Failure to appear at an exam at the assigned time without 24 hours prior notice to the instructor with an appropriate excuse (family vacations or work **do not** qualify as an appropriate excuse), or an appropriately documented emergency (e.g. severe illness, death in the immediate family) will result in a zero for that exam. **Students should arrange their schedules to accommodate exam dates!**

There will be one final exam on Friday, May 18 (8:30 am – 10:30 am). The final will consist of two sections. A section including material covered after lecture exam 3, and a cumulative section including all material covered in lecture throughout the course. The final exam must be taken to pass the course.

### **Homework/Quizzes/In class activities**

There will be homework assignments, in class activities, and quizzes given throughout the course. No points will be given for late assignments (no exceptions). In class activities and quizzes cannot be made-up if missed. **Homework assignments and quizzes may be added or dropped at the instructor's discretion.**

### **Evaluation/Grading**

Grades will be based on the following:

<u>Assessment</u>	<u>Points</u>
3 lecture exams – 100 points each	300
1 final exam	150
Activities/Homework/Quizzes	50
<u>Lab assignments/practicum</u>	<u>150*</u>
Total Points:	650

\*Exact points for lab will vary by assignment/practical and section. However, the percentage you earn in lab will be used to calculate your lab points for the course.

Letter grades will be assigned based on total points earned as follows:

- A:** 100-90%
- B:** 89-80%
- C:** 79-70%
- D:** 69-60%
- F:**  $\leq$ 59%

The use of +/- will be assigned at the instructor's discretion. Only letter grades can be earned in this course, the CR/NC option is **not** approved. Furthermore, an Incomplete grade will **not** be available for this section. Please see the *University Catalog* regarding incompletes. **There will be no extra credit available for this course.**

Total points available may change if homework/quizzes are added, but grades will still be based on the same percentage of total points earned.

### **Disability Resource Services**

CSU Stanislaus respects all forms of diversity. Students with disabilities are entitled to participate in academic activities and to be tested in a manner that accurately assesses their

knowledge/skills. Students with documented disabilities which may impact their academic performance should contact the disability Resource Services (DRS) office:

<https://www.csustan.edu/disability-resource-services>.

The DRS staff will determine the appropriate accommodations for this course. Students with disabilities should also make an appointment with the instructor to discuss the appropriate accommodations. All information and documentation regarding disabilities is confidential. DRS students must still take all exams on the scheduled exam day.

### **Academic Integrity**

There is zero-tolerance for academic dishonesty in this course. Academic dishonesty includes, but is not limited to cheating, plagiarism, or inappropriate use of course materials. Students violating this policy will receive a failing grade for the course and be referred to the Student Judicial Affairs Office. Furthermore, students exhibiting any behavior that is not consistent with the Student Conduct Code will be removed from the course and receive a failing grade. This includes any behavior that interferes with course instruction and/or the ability of other students to learn. Please see the University Code of Conduct for more information:

[http://catalog.csustan.edu/content.php?catoid=3&navoid=115#stud\\_cond](http://catalog.csustan.edu/content.php?catoid=3&navoid=115#stud_cond)

### **Implied Contract**

This syllabus serves as a contract between you and the instructor. By remaining enrolled in this course, you acknowledge that you have read, understand, agree to the material and policies herein.

### **Tips for Success**

1. **Devote time to this course.** Physiology can be a challenging subject. In order to succeed in this course, you will need to commit a significant amount of outside time for studying. For example, if you spend three hours in lecture a week, you should expect to spend a minimum of three hours outside of class studying the material.
2. **Attend and participate in class-** Successful students always attend class, but just being in class is only part of success. You must play an active role in your education. Read material before class so that the lecture content is familiar to you. Additionally, taking notes will help you pay attention in class and reading, hearing, and writing content will all improve your comprehension and retention. Review your notes after class and rewrite them or add to them if needed.
3. **Don't Fall Behind.** – This course covers a large amount of material and the material builds from one lecture to the next. Because of the pace of this course it will be very difficult to catch up if you fall behind. Keep up with the readings, lectures, and homework and you will be able to understand, retain, and enjoy the information much more. You are responsible for your education, so put in the time learn the material!
4. **Ask Questions** – If you don't understand a concept, ask a question. If you don't understand something, it's more than likely other students have the same question(s). Don't hesitate to ask me a question in class. You can also come to my office hours for any questions or clarification needed. Fellow students and tutoring can be invaluable resources as well.

5. **Work in groups**- Studying with others is often an effective way to learn material. Form study groups (even just pairs) to talk through ideas. Explain concepts to each other (teaching is one of the best ways to learn something) and challenge each other's ideas. Working/talking through problems with another person can be an effective learning tool. Attend tutoring sessions if needed.
6. **Discover your learning and study styles** – Students learn in different manners and at different rates. Try different learning and study strategies. People can learn visually, aurally, through reading/writing, or socially. Try different styles and see what works for you. Find study habits that work for you as well. How, where, when, how long, and with whom you study can all influence your learning/retention. If you are unhappy with your performance in a course, do not expect your grades to change if you do not change your study habits/strategy.

Course Schedule

The lecture schedule is tentative and will likely change, but will follow the same sequence. Dates may change and assignments/quizzes may be added or dropped at the instructor's discretion.

TENTATIVE LECTURE SCHEDULE\*

Date	Lecture Topic	Chapter
26 Jan	Introduction to Physiology	1
29 Jan	Levels of organization, Homeostasis	1
31 Jan	Chemical Composition of the Body	2
02 Feb	Energy	2
05 Feb	Enzymes	3
07 Feb	The Cell Membrane - functions	3
09 Feb	The Cell Membrane - functions /Energetics	3
12 Feb	Energetics	6/5
14 Feb	The Nervous System	12
16 Feb	Central Nervous System	13
19 Feb	Central Nervous System	13
21 Feb	Autonomic Nervous System	15
23 Feb	Autonomic Nervous System	15
26 Feb	<b>Exam 1</b>	8/10
28 Feb	Endocrine System	17
02 Mar	Endocrine System	17
05 Mar	Muscle	10
07 Mar	Muscle	10
09 Mar	Cardiovascular system - Blood	18
12 Mar	Cardiovascular system - Blood	18
14 Mar	Cardiovascular system - Heart	19
16 Mar	Cardiovascular system - Heart	19
19 Mar	Cardiovascular system - Circulation	20
21 Mar	Immune System	21
23 Mar	Immune System	21
26 Mar	Immune System	21
28 Mar	<b>Exam 2</b>	
30 Mar – 06 Apr	Cesar Chavez Day, Spring Break – No classes	
09 Apr	Respiratory System	22
11 Apr	Respiratory System	22
13 Apr	Digestive System	23
16 Apr	Digestive System	23
18 Apr	Digestive System	23
20 Apr	Nutrition, Metabolism	14

23 Apr	Nutrition, Metabolism	14
25 Apr	Body Temperature	14
27 Apr	Urinary System	25
30 Apr	Urinary System	25
02 May	Urinary System	25
04 May	Fluid Electrolyte balance	26
07 May	<b>Exam 3</b>	
09 May	Reproductive System	27
11 May	Reproductive System	27
14 May	Reproductive System	27
16 May	Review	
18 May	<b>FINAL EXAM 8:30 – 10:30 a.m.</b>	