

**Physiology- Zool. 2230 001      Spring 2012**

**Dr. F. Watson Phone #: 667-3483**

**Office # N-276**

**Office hours: M and W- 10:00-11:30 a.m.**

Email: flora@biology.csustan.edu

**Prerequisite:** Biol 1010, or Zool. 1050, or Zool. 2250

### **Brief Course Description**

The focus of this class, Zool. 2230, is on the human body, its function and mechanisms. This course provides the scientific foundation for the field of medicine and all other technologies related to human health and physical performance. The scope of topics included in this course is wide-ranging. However, each topic is covered in sufficient detail to provide a firm basis for future expansion and application.

### **Course objectives**

The students will:

1. Describe the topics studied in physiology and explain the importance of physiology in modern medicine.
2. Examine the role of the scientific method in the study of physiology as it relates to evaluating evidences and drawing logical conclusions.
3. Examine fundamental physiological principles, and the progression of structural levels of organization, and evaluate them as they apply to the homeostasis of human systems.
4. Investigate the chemical basis of life with emphasis on structure and function of macromolecules.
5. Describe the mechanisms of dehydration synthesis and hydrolysis reactions and their significance.
6. Examine the tissue level of organization and interpret the role of tissues in human systems.
7. Compare and contrast the location, organization and function of the four basic classifications of human tissues.
8. Define homeostasis and explain how this concept is used in physiology and medicine.
9. Describe the nature of negative and positive feedback loops and explain how these mechanisms act to maintain homeostasis.
10. Distinguish between intrinsic and extrinsic regulation and the roles of nervous and endocrine systems.
11. Examine and describe the major features and functions of the cardiovascular, respiratory, muscular, digestive, immune, reproductive, and renal systems and their contributions to homeostasis.

*s 2012 Tentative lecture schedule*

Text: HUMAN ANATOMY AND PHYSIOLOGY by Elaine N. Marieb and Katja Hoehn, eighth edition

Website: <http://moodle.csustan.edu>

Key: zool2230

DATE	TOPIC	CHAPTER
1-27	Introduction: The Meaning of Physiology and Importance of Physiology in Modern Medicine	1
1-30	Control Systems-- Homeostasis	1
2-1, 3, 6	Chemical Compositions of the Body & Cell Structure The primary tissues	2, 3
2-8, 10	Enzymes and Energy	4
2-13, 15	Membrane Transport	6
2-17, 20, 22	The Digestive System	
2-24	<b>Exam 1 Last day to add/drop— 2- 22 -2012</b>	
2-27, 29	Regulation of Metabolism	18
3-2, 5, 7	The Respiratory System	19
3-9, 12, 14	The Cardiovascular System-Heart and Circulation	13

3-16, 19, 21	Cardiac Output, Blood Flow	14
3-23, 26, 28	The Immune System	15
<b>3-30</b>	<b>Exam 2</b>	
4-2, 4, 6	The Muscular System	12
4-16, 18, 20	The Urinary System	17
4-23, 25, 27	The Reproductive System	20
4-30, 5-2	The Nervous System: Organization	7
5-4, 7, 9	Central Nervous System The Autonomic Nervous System	8, 9
5-11, 14	The Endocrine System	11
<b>5-24</b>	<b>Final Exam 11:15 a.m.- 1:15 p.m.</b>	

Physiology is the study of how cells, tissues and organs function. **Cause-and-effect sequences** are emphasized in studying how the human body works. Due to the quantity and complexity of this subject, **students need to attend class on a regular basis.** **Unannounced** quizzes will be given in class. Bonus points may be given during these quizzes. This is to encourage students to be prepared for class, e.g. reading the chapters ahead and reviewing notes. **NO make-up quizzes will be given.** The missed quizzes scores will be zero and your grade may be affected if you missed more than one quiz.

The given schedule is a tentative outline and the exam dates may change depending on the materials covered in lecture. Exams will be a combination of multiple choice questions, fill in the blanks, and essays. **You need Scantron Form No. 882-E for each exam and a number-2 pencil with a good eraser,** two scantrons for the final exam. It is the students' responsibility to transfer the correct answers from the exam to the scantron; **only the answers from the scantron will be accepted.** If you need more time to take an exam for any reason, please request

permission at the Student Services Center. And, if you are going to take the exams at the Student Services Center, be sure to give the necessary form to me at least one week before the exam date. I will need to send the exam over to the test center ahead of time.

You may not leave the room during an exam without the instructor's permission. You must turn off cell phones and remove baseball caps during exams. Taking out a cell phone during quizzes/exams is considered cheating and you will receive an F for the quiz/exam.

Grading is based tentatively on take-home worksheets, online assignments, unannounced quizzes, two exams, and a final exam. Please let me know **ahead of time** if you cannot take the exams as scheduled. Grading will be based on percentages. If you missed an exam due to illness or family emergency, please provide official documentation and a make-up exam will be scheduled.

**Any form of academic dishonesty will result in an F in the class, and the incident will be reported to the Dean.** \*\* More information will be given in class.

Tentative grading:

6-7 quizzes @ 15 points each	105 pts
Two exams + final exam	350 pts +/- 50 pts
Worksheets**	80 pts
Online assignments	40-50 pts
<i>Iclicker points (may replace quizzes)</i>	40-50 pts
Total points	600 pts +/- 50 pts

**Grading scale:**

100-94% = A	93-90% = A-	89-87% = B+
86-84% = B	83-80% = B-	79-77% = C+
76-74% = C	73-70% = C-	69-67% = D+
66-64% = D	63-60% = D-	Below 60% = F

**You have one week to contest your grade after an exam or a quiz has been returned.**

The above schedule and grading are tentative and may subject to change.

You are required to purchase an iclicker remote for in-class participation. Iclicker is a response system that allows you to respond to questions I pose during class. You will be graded on the feedback and participation. In order to receive this credit, you will need to register your iclicker remote online within the **first two weeks** (by 9-2-2010) of class. You must have come to class at least once and voted on at least one question in order to complete this registration properly. Once you have voted on a question in the class, go to [www.iclicker.com/registration](http://www.iclicker.com/registration). Complete

the fields with your first name, last name, student ID, and remote ID. Your student ID should be your given ID for class registration. The remote ID is the series of numbers/letters found on the bottom of the back of your iclicker remote. The iclicker response system will be used quite often in class, and you are responsible for bringing your remote **to every lecture**.

You need to create your own moodle account where grades will be posted. Here is the instruction:

To create your Moodle account and enroll yourself in our ZOOL 2230 course site, begin at <http://moodle.csustan.edu> and click through the course categories to find ZOOL 2230. Click the link for the ZOOL 2230 course to continue the enrollment process. At the login screen, click the "Create new account" button over on the right. Fill out the form and wait for the email confirmation message to arrive in your inbox and follow its instructions to finish creating your account. The final step to enrolling is to enter the course enrollment key (password) when you're prompted to do so. The key is: zool2230. This key will ensure that only the students in our class will have access to the course site. If you encounter any problems, please email **Glenn Pillsbury** ([gpillsbury@csustan.edu](mailto:gpillsbury@csustan.edu)); he is OIT's Moodle administrator.

**You need to enroll in the Moodle account, iclicker, and Mastering A&P by February 6. You will be dropped from my roster if you are not on these accounts by this due date.**