

**BIO 122**  
**Human Anatomy and Physiology II**  
Spring 2010  
Pierce 109, MF12:45 – 1:55pm

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Office Hours: M 2pm – 3:30pm

**TEXT** **Principles of Anatomy and Physiology** (12<sup>th</sup> ed). Tortora, Gerard J. and Derrickson, B. New York: John Wiley and Sons (2009)

**Other Required Materials**

Marieb, E.N. Human Anatomy and Physiology Laboratory Manual (9<sup>th</sup> ed.) – Fetal Pig Version. Redwood City: Benjamin Cummings (2008)

**OBJECTIVES**

This course, the second in a two-course sequence, examines structures and functions associated with specific organ systems, and functional integration of these systems in homeostatic regulation of the body. The special sense, endocrine, circulatory, urogenital, respiratory and gastrointestinal systems will be studied. Upon completion of this course, the successful student will be able to demonstrate understanding of various aspects of human anatomy and physiology.

**GRADING SCHEME**

Grades will be based on the following:

**POINTS**

**Exams**

**450**

There will be 4 hour-long, in-class exams during the semester, each totaling 150 points. There will be no make up exams allowed. Exams may include multiple choice, short answer, true-false, matching or essay questions.

**Quizzes**

**100**

Weekly quizzes (either announced or “pop”) will be given. The ten best quiz grades will be included in the final grade.

**Comprehensive Final Exam (OPTIONAL)**

**150**

The final exam will include material from the entire semester. Students missing one regularly scheduled exam during the semester, or students wishing to replace a low exam score, may take the comprehensive final exam. (Students must take some combination of 4 of the 5 scheduled exams)

**Laboratory**

**300**

Periodic practical laboratory exams will be given.  
OPPORTUNITIES FOR MAKE-UP LABORATORY EXAMS  
ARE EXTREMELY LIMITED AND MUST HAVE THE APPROVAL  
OF THE LAB COORDINATOR.

**Grading Scale** The overall point score will determine the letter grade according to the following: **A – 900-1000; B – 800-899; C – 700-799; D – 560-699; F – 0-559.** Borderline cases will be determined by class participation.

**Lecture Calendar s2010**

<b>Date</b>	<b>Lecture Topics and Readings</b>	<b>Laboratory Exercises</b>
<b>1/15</b>	CH18 – The Endocrine System: Overview and review; Pituitary and hypothalamus control; hormones of the adrenal glands and the pancreas	Exercise 27
<b>1/18</b>	<b>MLK Holiday – Class does not meet</b>	Dissection Exercise 4
<b>1/22</b>	CH20 The Cardiovascular System: The Heart Anatomy review; tissue anatomy review; conduction system and conducting cell properties; EKG	Exercise 30 Exercise 31
<b>1/25</b>	CH 20 – The Cardiovascular System: The Heart: Cardiac cycle; cardiac output and Starling's Law CH 21 – The Cardiovascular System: Blood Vessels and Hemodynamics: Tissue anatomy review; circulatory system overview; introduction to blood pressure and control	Exercise 32 Dissection exercise 4
<b>1/29</b>	CH 21 – The Cardiovascular System: Blood Vessels and Hemodynamics: Capillary and fluid-flow; Blood pressure control mechanisms;	
<b>2/1</b>	CH 21 – The Cardiovascular System: Blood Vessels and Hemodynamics: Baroreceptor and chemoreceptor reflexes	Exercise 32 (continued) Dissection exercise 4
<b>2/5</b>	<b>LECTURE EXAM 1</b>	
<b>2/8</b>	CH 21 – The Cardiovascular System: Blood Vessels and Hemodynamics: Baroreceptor and chemoreceptor reflexes	Exercise 33A Cardiovascular and Blood Pressure Exercises
<b>2/12</b>	CH 17 – Blood: Overview; Structure and function of erythrocytes; hemostasis	Simulation at the School of Nursing?
<b>2/15</b>	CH22 – The Lymphatic System and Immunity: Overview: Innate defenses; Non-specific and specific defenses; Humoral and cell-mediated responses	Exercise 29A Exercise 29B
<b>2/19</b>	CH22 – The Lymphatic System and Immunity: Humoral and cell-mediated responses	
<b>2/22</b>	CH23 – The Respiratory System: Overview and anatomy review; Pulmonary ventilation	<b>LAB EXAM 1</b>
<b>2/26</b>	CH23 – The Respiratory System: Gas exchange and transport; oxygen transport and the function of hemoglobin; control of respiration	

<b>Date</b>	<b>Lecture Topics and Readings</b>	<b>Laboratory Exercises</b>
<b>3/1</b>	CH 23 – The Respiratory System: Gas exchange and transport; oxygen transport and the function of hemoglobin; control of respiration	Exercise 36 Exercise 37A Exercise 37B
<b>3/5</b>	<b>LECTURE EXAM 2</b>	
<b>3/8</b>	<b>SPRING BREAK</b>	<b>Labs do not meet</b>
<b>3/12</b>	<b>SPRING BREAK</b>	
<b>3/15</b>	CH 26 – The Urinary System: Overview and anatomy review; Urine formation; Renal mechanisms regulating homeostasis	Exercise 40 Exercise 41A
<b>3/19</b>	CH 26 – The Urinary System: Overview and anatomy review; Urine formation; Renal mechanisms regulating homeostasis	
<b>3/22</b>	CH 27 – Fluid, Electrolyte and Acid-Base Balance:	Exercise 40 (continued) Acid-Base Balance (You Be the Doctor)
<b>3/26</b>	CH 28 – The Reproductive Systems: Overview and anatomy review; Mitosis and meiosis review	
<b>3/29</b>	<b>LECTURE EXAM 3</b>	Exercise 42 Exercise 43
<b>4/2</b>	CH 28 – The Reproductive Systems : Male reproduction; Female reproduction	
<b>4/5</b>	CH 28 – The Reproductive Systems : Female reproduction; Hormonal regulation of male and female reproduction	Exercise 42 Exercise 43 (continued)
<b>4/9</b>	CH28 – The Reproductive Systems: Hormonal regulation of male and female reproduction	
<b>4/12</b>	CH 24 – The Digestive System: Overview and anatomy review; acid secretion into the stomach and its control;	Exercise 38 Exercise 39B Digestion wet lab?
<b>4/16</b>	CH24 – The Digestive System: Absorption; Control of digestive processes	
<b>4/19</b>	CH 24 – The Digestive System: Overview and anatomy review; acid secretion into the stomach and its control;	<b>LAB EXAM 2</b>
<b>4/23</b>	CH25 – Metabolism and Nutrition: overview of glucose oxidation; aerobic vs. anaerobic respiration	
<b>4/26</b>	<b>Last Class Day</b> <b>LECTURE EXAM 4</b>	<b>Labs do not meet</b>
<b>4/29</b>	<b>FINAL EXAM (optional)</b> <b>7:00pm – 10:00pm</b>	<b>Labs do not meet</b>

This schedule is tentative. I reserve the right to make changes as deemed necessary.

### Other Important Dates

1/12/2010	Last Day to Register for Classes without a Fee
1/13/2010	First Day of Class. First Day of Add/Drop
1/20/2010	Last Day to Add/Drop
3/23/2009	First Day of Pre-registration for Fall 2010

### Policies

#### Attendance and Enrollment

You, as a student, are responsible for managing your enrollment in this class. Students should add/drop/withdraw using OPUS. You may drop this class during the regularly scheduled registration period without academic or financial penalty. Students who need to withdraw from the class after the registration period (generally, the first two weeks of the semester) but before the midpoint will receive a grade of W.

You, as a student, are responsible for all information and material presented in class. Attendance at lecture is strongly encouraged by the Biology department at Oxford College. Students are allowed 4 absences from lecture, for any reason, during the semester.

**Attendance in lab is mandatory.** Students who miss more than two labs without contacting the instructor and without making up the exercise will receive a failing grade for the course.

See the Absence Policy later in this document for details related to class and laboratory attendance.

#### Make-up work

- There will be no make-up quizzes.
- There are no make-up exams. If you miss an exam, for any reason, you may be allowed to take the optional comprehensive final exam at the end of the semester.
- Make-up laboratory classes will be at the discretion of the laboratory instructor and the laboratory coordinator.
- A single, comprehensive make-up laboratory exam will be given at the end of the semester which may replace one missed laboratory exam. Only students who have earned 55% of the possible lab points (ie., 165 points out of 300 points) are eligible to take the comprehensive make-up laboratory exam. Students missing more than one laboratory exam will receive a grade of 0 for the additional missed exams. Students who miss a lab exam and who are not eligible for the comprehensive make up lab exam will receive a grade of 0 for the missed exam.

#### Grade Challenges

If you receive a grade that you believe is in error, you may challenge the grade in writing. You must submit to me the question, the answer you originally submitted, the answer which received full credit, and brief explanation detailing your reasons for requesting an increase in your score. I will only consider written requests.

### **Academic Dishonesty**

Dishonesty in the classroom will not be tolerated. The (abridged) policy regarding student dishonesty at Oxford College of Emory University can be found in "Regulations," under Conduct and Honor, pages 103-106 of the 2009-2010 Catalog. An electronic version of the complete policy can be found at

[http://oxford.emory.edu/audiences/current\\_students/academics/academic\\_success/honor\\_code.dot](http://oxford.emory.edu/audiences/current_students/academics/academic_success/honor_code.dot)

Violations of the Student Code of Conduct will receive a grade of 0 for the assignment and a report of the incident will be forwarded to the Honor Council.

When appropriate, students may collaborate on experiments or assignments, however students will generally be expected to turn in their own work. Instructions regarding the nature of each assignment will be provided.

### **Americans with Disabilities Act**

Oxford College of Emory University and Nell Hodgson Woodruff School of Nursing both comply with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Students with disabilities who seek academic accommodations must first take appropriate documentation to the Office of Disability Services, located on the main campus, University Administration Building, Suite 110 ([www.ods.emory.edu](http://www.ods.emory.edu)) OR 100 Hamill Street on the Oxford College campus. It is the responsibility of ODS to assess the documentation of each student requesting academic accommodations based on disability.

If you believe that you possess a disability for which reasonable accommodation must be made, you must consult with the instructor before the close of the second class meeting. Should a disability requiring accommodation arise after the second class meeting, you must present documentation to the ODS for assessment as quickly as is possible.

### **"Civility Clause"**

Students are expected to behave toward me and fellow students with courtesy and consideration. This means that talking and disruptive behavior will be kept to a minimum. Students who must arrive late to class should enter quietly and be prepared for class (ie, not fumbling with calculators, backpacks, papers, etc...) Students who need to leave a class early should sit near an exit, then leave quietly. Cell phones, pagers, and other electronic devices should be silenced in the classroom.

I reserve the right to end a class at any time, for any reason, including the disruptive or rude behavior of anyone in the classroom. Questions, comments or concerns may be addressed to me outside class, during office hours, via voicemail or email, as well as during class.

## Emails

I love emails! I actually would prefer that you contact me this way for many reasons. To ensure that I can address your issue in a timely manner, please include the following in your message...

1. **the problem** (which should also be included in subject line) that requires a decision or action
2. **the background - why are you making this request?** What is the policy outlined in the syllabus?
3. **options available to you** - first choice, second choice, and why each is an option.
4. **your specific request** (which might also be included in the subject line)
5. **the deadline** by which your request must be met

**The subject line should include LAST NAME, COURSE and CRN, and the problem or request stated very succinctly. Email messages without this information in the subject line may not receive a response.**

More questions, concerns, comments? I welcome your input! Feel free to visit me in my office or after class, contact me via email or phone, or drop by.

## **Absence Policy – Biology Department, Oxford College**

All students are expected to attend all lecture and laboratory sessions. However, emergencies may arise which will necessitate absences from class. Students are allowed 4 cuts in lecture and **NO CUTS** in lab. Students may only miss lab without penalty in cases of illness, family emergency or a school-sponsored event which is cleared with the professor in advance. Students are responsible for all material which is covered in laboratory and lecture. When possible, students will be allowed to "make-up" laboratory material missed due to an excused absence; however, because of the nature of the laboratory material, actual "make-up" of missed activities is usually impossible.

### **PENALTIES**

Students who exceed the "4-cut" limit in lecture, for whatever reason, or have an unacceptable absence from laboratory will have their final grade reduced 5 points per absence. Students who miss 2 labs without acceptable reasons will fail the course (see below).

### **LECTURE ABSENCES**

THERE ARE NO EXCUSED ABSENCES FOR LECTURE. Each student may be absent four (4) times without penalty. These four (4) cuts may be used for any reason: illness, studying, travel, family emergency, etc. However, ANY additional cuts will result in grade reduction. **USE YOUR CUTS JUDICIOUSLY**, e.g., for sick leave only.

### **ACCEPTABLE LABORATORY ABSENCES**

Although no discretionary absences, ie, "cuts," are allowed regarding laboratory exercises, on rare occasions, illness, family emergencies or certain school sponsored events may make it necessary for a student to miss a laboratory session. The instructor **MUST** be notified prior to the day of the absence in all but the most extreme emergencies.

In all cases, the final decision regarding whether or not an absence is acceptable will be made by the instructor.

**AN UNACCEPTABLE ABSENCE FROM LABORATORY RESULTS IN A FIVE-POINT REDUCTION IN THE FINAL GRADE.  
TWO UNACCEPTABLE LABORATORY ABSENCES RESULT IN FAILURE OF THE COURSE.**

### **MISSED TESTS**

Ordinarily, tests cannot be made up, however, this is up to the instructor. If a student misses a test, and the absence is acceptable, the missed test will not count either for or against the student. If the absence is not excused, the grade will be a zero. Students are cautioned that any excuse for missing an exam will come under sever scrutiny by the instructor. **THE INSTRUCTOR MUST BE NOTIFIED PRIOR TO THE TIME OF THE EXAM, AND THE INSTRUCTOR MAKES THE FINAL DECISION REGARDING WHETHER OR NOT AN ABSENCE IS ACCEPTABLE.**

Laboratory tests which are missed for a reason that is excused **MUST** be made up. The instructor must be notified prior to the time of the test.

### **RELIGIOUS HOLIDAYS**

Students must notify the instructor one week in advance if they intend to be absent for a religious holiday.

### **TARDINESS**

Being late to class is rude and distracting. Continued tardiness by any student will result in the assignment of absences and ultimately a reduction in the student's grade. Three tardies equal an absence. The tardy student is responsible for notifying the instructor that s/he entered the classroom late and therefore was not absent. The instructor reserves the option of excluding a person from further classroom or laboratory participation if the student is continuously tardy.

**Falsification of information regarding absences from class or laboratory will be considered a breach of academic integrity.**