BIOL122 OX

Human Anatomy and Physiology II

Spring 2012 Pierce 102

TR11:30 - 12:45pm

Ann Massey, PhD

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or

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Office Hours: R 1:00pm - 3:00pm

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

Other Required Materials

Marieb, E.N. <u>Human Anatomy and Physiology Laboratory Manual</u> (**10**th ed.) – Fetal Pig Version. Redwood City: Benjamin Cummings (2011)

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 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.

PREREQUISITE

To enroll in this course, successful completion (with a grade of C or better) of either BIOL121 (or an analogous human anatomy and physiology course <u>with laboratory component)</u> or BIOL141 is STRONGLY ENCOURAGED.

GRADING SCHEME

Grades will be based on the following: **Exams**

POINTS

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 s2013

Date	Lecture Topics and Readings	Laboratory Exercises
January 15	CH18 – The Endocrine System: Overview	Exercise 27
January 15	and review; Pituitary and hypothalamus	Excluse 21
	control; hormones of the adrenal glands and	
	the pancreas	
January 17	CH20 - The Cardiovascular System: The	
	Heart Anatomy review; tissue anatomy review; conduction system and conducting	
	cell properties; EKG	
January 22	CH 20 – The Cardiovascular System: The	Dissection Exercise 4
	Heart: Cardiac cycle; cardiac output and	Exercise 30
	Starling's Law	Exercise 31
	CLL 20. The Condinues and a Custom. The	
January 24	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;	
lanus oo	introduction to blood pressure and control	Disposition Eversion 4
January 29	CH 21 – The Cardiovascular System: Blood Vessels and Hemodynamics: Capillary and	Dissection Exercise 4 Exercise 30
	fluid-flow; Blood pressure control	Exercise 30
	mechanisms;	Exercise 32
	,	
January 31	LECTURE EXAM 1	
February 5	CH 21 – The Cardiovascular System: Blood	Exercise 32 (continued)
	Vessels and Hemodynamics: Baroreceptor	Dissection exercise 4
	and chemoreceptor reflexes	
February 7	CH 17 – Blood: Overview; Structure and	
	function of erythrocytes; hemostasis	
February 12	CH22 – The Lymphatic System and Immunity:	Exercise 33A
	Overview: Innate defenses; Non-specific and	Cardiovascular and Blood
	specific defenses; Humoral and cell-mediated	Pressure Exercises
	responses	
February 14	CH22 – The Lymphatic System and Immunity: Humoral and cell-mediated responses	
February 19	CH22 – The Lymphatic System and Immunity:	Exercise 29A
	Humoral and cell-mediated responses	Exercise 29B
	LECTURE EVAM 2	
February 21	LECTURE EXAM 2	
February 26	CH 24 – The Digestive System: Overview and	
	anatomy review; acid secretion into the	
	stomach and its control;	
Fabrus 22		
February 28		LAB EXAM 1

Date	Lecture Topics and Readings	Laboratory Exercises
March 5	CH24 – The Digestive System: Absorption; Control of digestive processes	Exercise 38 Exercise 39B
March 7	CH25 – Metabolism and Nutrition: overview of glucose oxidation; aerobic vs. anaerobic respiration	Digestion wet lab
March 12 March 14	SPRING BREAK SPRING BREAK	Labs do not meet
March 19	CH23 – The Respiratory System: Overview and anatomy review; Pulmonary ventilation	Exercise 36 Exercise 37A Exercise 37B
March 21	CH23 – The Respiratory System: Gas exchange and transport; oxygen transport and the function of hemoglobin; control of respiration	
March 26	LECTURE EXAM 3	Exercise 40
March 28	CH 26 – The Urinary System: Overview and anatomy review; Urine formation; Renal mechanisms regulating homeostasis	
April 2	CH 26 – The Urinary System: Renal mechanisms regulating homeostasis CH 27 – Fluid, Electrolyte and Acid-Base Balance:	Exercise 41A Acid-Base Balance (You Be the Doctor)
April 4	CH 27 – Fluid, Electrolyte and Acid-Base Balance:	
April 9	CH 27 – Fluid, Electrolyte and Acid-Base Balance:	Exercise 42 Exercise 43
April 11	CH28 – The Reproductive Systems: Male reproduction	
April 16	CH28 – The Reproductive Systems: Female reproduction;	Exercise 42 Exercise 43 (continued)
April 18	LECTURE EXAM 4	
April 23	Review / Case Study	
April 25	Last Class Day	LAB EXAM 2
May 8	FINAL EXAM (optional) 9am – 12N	Labs do not meet

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

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 <u>single</u>, <u>comprehensive</u> make-up laboratory exam will be given at the end of the semester which may replace <u>one</u> 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 <u>Catalog</u>. An electronic version of the complete policy can be found at

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, Suite110 (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.

Student work submitted as part of this course may be reviewed by Oxford College and Emory College faculty and staff for the purposes of improving instruction and enhancing Emory education.

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. <a href="https://doi.org/10.1001/jhttps://doi.org/10.1

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.

<u>Falsification of information regarding absences from class or laboratory will be considered a breach of academic integrity.</u>