

## **BIOLOGY 254: HUMAN ANATOMY AND PHYSIOLOGY II - Summer '16**

**Course Description:** A lecture and laboratory course in the anatomy and physiology of the human body. Study begins with introductions to basic terminology and cell structure; then extends to a survey of the organ systems. Laboratory study enhanced via microscopic study of tissues, preserved specimens and anatomic models, the use of interactive computer models, cat dissection, and the examination of plastinated cadaver(s). A strong biology background, Biology 132, Medical Terminology or Body Structure and Function is recommended. **Prerequisite: BIOLOGY 253**

**Instructor: Patricia Visser**                      Office: JM 234A                      Phone: (517) 796-8533  
Email: patricia\_visser@jccmi.edu                      Course Web site: JetNet (<https://jetnet.jccmi.edu/>)  
Office Hours:                      Tues., Wed. & Thurs. 12:00-12:55 p.m.

**Materials:** - Tortora & Derrickson -PRINCIPLES OF ANATOMY & PHYSIOLOGY, 14th ed. Wiley&Sons  
- Biology 254 Laboratory Manual, Visser & Bradford, Kendall-Hunt, 2015  
- Lecture Outline (optional)

**Grade:** The grade you earn will be based on the total points accumulated: (**Approximate total = 830 points**)

1) Class tests (x5)	(80 pts. each)	5) Pre-Test Assignments	(5 pts. each)
2) Pre-chapter quizzes (x10)	(5 pts. each)	6) Laboratory participation	(30 pts.)
3) Lab Practicals (x3)	(60-80 pts. each)	7) Lab Assignments (x8)	(10 pts. each)
4) Research paper	(40 points)	8) Misc. assignments/quizzes	(5 pts. each)

**Grading scale:** 4.0 (A) 95-100%; 3.5 (A-/B+) 90-94%; 3.0 (B) 85-89%; 2.5 (B-/C+) 80-84%; 2.0 (C) 75-79%; 1.5 (C-/D+) 70-74%; 1.0 (D) 65-69%; 0.5 (D-) 60-64%. You will be expected to keep a record of your grades. Grade spreadsheets will be posted to the course JetNet site and posted on my door.

**Absence Policy:** You are responsible for all assignments, handouts and materials covered in both lecture and lab. If you must miss a lab exercise or exam, it is your responsibility to arrange make-up. The privilege of making-up exams and lab practicals will be extended only in the case of emergency, illness, or previously authorized business. Please let me know in advance whenever possible. All make-ups will be different. All second (and subsequent) make-up point values will be 80% of your actual score. Lab work can be made-up by attending other lab sections or by doing the work on your own. Unannounced quizzes cannot be made up.

**General Philosophy:** You are an adult and a college student. As such you are expected to be able to work and learn independently and to be responsible for all assignments and materials. This is a difficult course that covers a large amount of material and will require hard work and discipline. You will need to keep up, as the pace of the class is fast and the material builds on what was covered in previous class sessions. There are no quick, easy ways to succeed; what you learn here will be directly proportional to the amount of effort you have expended.

You are expected to be considerate of the rights of others and not to interfere with those who are trying to study, work and learn. You may feel that you paid for this class so you have the right to do whatever you want, but your classmates paid for it too, and they have the right to not have their learning disrupted by your rude behavior. Cell phones must be on silent mode (if on at all!) and any non-class related use of phones or other electronics during class time risks having the item confiscated.

### **Miscellaneous:**

1. You are expected to keep a complete, well-organized notebook of lecture notes, assignments, grades and other material covered in lecture or lab. This will not be collected or graded but will be for your benefit since it will provide your main source of information for study.
2. If you feel an error has been made, you disagree with what has been done, or feel that you have been treated unfairly, bring those concerns to my attention immediately so the issue can be resolved.
3. There will be **no extra credit projects** for this course, since it is felt that your time will be better allocated in studying the assigned materials. *We don't do extra credit, so don't bother asking.*

4. Supplemental materials may be used at your home or in the JCC Computer Labs. **The text's companion website** contains a variety of study aids. ADAM Physiology Modules & Interactions CDs (on various systems) should be available in the LRC (library at main campus).
5. Student tutors may be available on a need basis, at no cost to the student being tutored. Contact the Center for Student Success in Walker Hall (517-796-8415).
6. Students with disabilities who believe that they may need accommodations for class should contact the Center for Student Success as soon as possible to ensure accommodations are implemented in a timely fashion.
7. A student found cheating or plagiarizing will receive a score of zero on that exam or assignment, or a grade of 0.0 in the course. In addition, the Academic Deans will be informed of any such incident. JCC's Academic Honesty Policy is at: [http://www.jccmi.edu/administration/deans/Policies/Academic\\_Honesty\\_Policy.doc](http://www.jccmi.edu/administration/deans/Policies/Academic_Honesty_Policy.doc)

**LABORATORY PROCEDURE:** Lab is a very important learning component of this course. Cooperation with other students and the instructor in keeping the lab orderly and clean is expected. Please observe the following laboratory guidelines, and encourage your partners to do the same.

1. You are expected to read each week's lab write-up before arriving so you can understand what you will be doing. To help "pull things together" you will have 2-3 questions to answer before each lab begins. Completion of these questions will count toward your lab participation points (described below).
2. 30 points of your final grade will be based on your attitude and effort in lab. Any lab missed or not worked on conscientiously, in excess of one, will result in a loss of 3 points per lab session. It is your responsibility to make sure that your name is on the sign-in sheet each week.
3. Specific instructions for each activity will be given at the beginning of each lab period. You will be expected to complete all the assignments that require dissection or lab apparatus during this time. Assignments will be due at the start of the next lab period unless specifically indicated.
4. You will return all materials, apparatus, and reference books to their proper place at the end of the lab period. Apparatus that has been used should be washed with tap water and blotted dry with paper towels. Please leave materials neatly arranged; all members of each working group will be held responsible for the condition and return of the lab materials.
5. Consult with other members of the class and the instructor concerning any part of your work. Cooperation and consultation are encouraged; however, make certain that you completely understand everything since you will be held individually accountable for all materials covered. In addition, all answers to lab questions are to be written in your own words – not copied from a lab partner, from the text or from an online resource (all of which are violations of the academic honesty policy).
6. Disruptive behavior and loud conversations will not be permitted. Do not disturb others who are working.
7. You are free to leave the lab when you have completed the assigned materials.
8. Use of the human cadaver mandates a requirement to sign the LEARNING CONTRACT prior to participation of any kind. This contract will require reading and acceptance of: the Human Specimen Respect Policy and the "Anatomy and Physiology Lab Rules." The Rules and Learning Contract can be found on the course JetNet site.

### **Associate Degree Outcomes (ADOs) for BIO 254**

#### **ADO 2 - SCIENTIFIC REASONING**

Describe issues raised by scientific advancements in physiology for modern society. Assessed by term paper.  
Define scientific terminology and explains basic principles, concepts, and theories of the discipline. Assessed by: pretest/post test and selected exams.

#### **ADO 7 – CRITICAL THINKING**

Demonstrate critical thinking through questioning sources. Assessed by term paper.  
Interpreting/ analyzing/evaluating clinical information in relation to physiological processes and using factual knowledge to solve clinical problems. Assessed by case studies and physiology lab exercises.

## **Biology 254: LECTURE AND LABORATORY SCHEDULE (Summer '16)**

(Subject to change based on unforeseen circumstances)

<u>DATE</u>	<u>CLASS &amp; CHAPTER QUIZ SCHEDULE</u>	<u>LAB EXERCISE</u>
6/21	Chapter 16	1- Sensory Pathways
6/22	Finish Ch. 16; Chapter 17	
6/23	Finish Ch. 17; Chapter 15	2- Special Senses
6/28	Chapter 18	3 - Endocrine System
6/29	<b>EXAM 1 – Ch. 15 → 17</b> ; continue Ch. 18	
6/30	Finish Ch. 18	<b>LAB PRACTICAL 1*</b>
7/5	Chapter 19	4 - Blood Cells
7/6	Finish Ch. 19; Begin Chapter 22	
7/7	Finish Ch. 22	5 - Thoracic Cavity
7/12	<b>EXAM 2 -- Ch. 18, 19, 22</b>	6a - The Heart
7/13	Chapter 20	
7/14	Chapter 21	6b - Cardiovascular Phys
7/19	Finish Ch. 21; Begin Chapter 23	7 - Respiratory System
7/20	Finish Ch. 23	
7/21	Chapter 24	<b>LAB PRACTICAL 2*</b>
7/26	<b>EXAM 3 – CHAP. 20, 21, 23</b>	8 - Abdominal Cavity
7/27	Finish Ch. 24; Begin Chapter 25	
7/28	Finish Ch. 25; Begin Chapter 27	9 - Metabolism
8/2	Chapter 26	10 - Urinary System
	<b>Research Paper Due</b>	
8/3	<b>EXAM 4 – CHAP. 24, 25, 27</b> ; Finish Ch. 26	
8/4	Chapter 28	11 - Reproductive System
8/9	Finish Ch. 28	<b>LAB PRACTICAL 3</b>
8/10	Chapter 29	
8/11	<b>EXAM 5 – CHAP. 26, 28, 29</b>	

**\*On Lab Practical 1 & 2 days**, class order will be reversed – we will hold the lab practical during normal lecture time and then have lecture during the remainder of scheduled class time.