

## BIO253: HUMAN ANATOMY & PHYSIOLOGY I SYLLABUS

**Course Description:** This is the first course of a 2-semester course sequence in which students study the anatomy and physiology of the human body. The course includes introductions to basic chemistry, biology, and histology, and extends to the survey of the integumentary, skeletal, muscular and nervous systems. This course includes a laboratory component in which students are responsible for performing dissections and making original observations on dissected material. The laboratory experience culminates with the use of a plastinated human specimen for observation. It is a difficult course requiring hard work and discipline to be successful. A strong background in biology and/or chemistry is highly recommended. **Prerequisites: ENG 085\* and MTH 110\*.**

<b>Instructor:</b> Jan Bradford Phone (517) 796-8648 Email: <a href="mailto:jbradford@jccmi.edu">jbradford@jccmi.edu</a> (*best to reach me)	<b>Office</b> JM 110; Hours MTW.8:30-9am; MW.1:30-2pm; T.11-2:30pm; Th. Online office hours. Others by appointment.
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### Texts and Materials:

#### Required:

PRINCIPLES OF ANATOMY AND PHYSIOLOGY, Tortora & Derrickson; 13th ed.

Anatomy and Physiology I Coursepack /& Lab Manual - Bradford sections; from the JC Bookstore

#### Optional:

Van De Graaff & Crawley - PHOTOGRAPHIC ATLAS FOR THE ANATOMY & PHYSIOLOGY LABORATORY, 7<sup>th</sup> edition

<b>Grade:</b> The grade you earn in this course will be based upon total points accumulated on:	
1) Lab/Recitation Participation Quizzing (60 pts. total) [*See explanation; Lab Procedure below]	3) Homework Assignments and/or Pop Quizzes (minimal points)
2) Lab Practicals (25-100 pts. each)	4) Online Chapter Terminology Quizzes (50 pts. total)
	5) Theory Exams (100 pts. each)

<b>Grading scale:</b> [You will be expected to keep a record of your grades. Grades will be posted on our course-site.]			
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%

**Absence Policy:** You are responsible for all assignments, handouts and materials covered in theory and in lab exercises. Make-up opportunities for the exams and/or practicals are extended only in the case of emergencies / hospitalization / funerals and require written documentation verifying the cause of the absence. **Second and subsequent make up exams will be awarded only 80% of the achieved score.** Practicals may not be made up unless you can take the practical with another lab section. In the event of a missed practical, you may either take a zero for the score, or take an incomplete for the course, and make up the practical next semester.

**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, and will cover a tremendous amount of material; that will require hard work and discipline. You will need to keep up, as the pace of the class is fast, and it will pick-up as we cover the last few chapters and get into consolidation and review. There are no quick, easy ways; what you learn here will be directly proportional to the amount of effort you have expended. You're also expected to be considerate of the rights of others and not to interfere with those who are trying to study, work and learn.

## Miscellaneous:

- \* No materials will be used during examinations of any kind, except those provided by your instructor. No electronic devices are allowed during examinations. You will need a #2 pencil for examinations.
- \* An exam score curve MAY be used for each exam. The curve is a privilege.
- \* It is expected that problems that occur because you feel an error has been made, or disagree with what has been done, or feel that you have been treated unfairly, will be brought to my immediate attention so that they can be resolved.
- \* 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.
- \* An iClicker **may** be loaned to you during class visits for the semester. **At no time will this iClicker leave the lab room!** You will borrow it at the beginning of lab and return it to where it belongs at the end of each lab. Your final grade will not be issued if your clicker is missing. **You are responsible for the replacement cost of your clicker should it become damaged, or is missing.**
- \* Supplemental materials may be used at your home or in the JC Computer Labs. **The text's companion website** is available -- see instructions in your text.
- \* Tutors and additional free services for academic success can be accessed by calling (517) 796-8415 or by stopping by the Center for Student Success, Bert Walker Hall. Faculty and tutors in the CSS will help you with writing, study skills, test anxiety, math and reading.
- \* Students with documented disabilities should contact the Center for Student Success by calling 796-8415, or going to Bert Walker Hall, as soon as possible to ensure that such accommodations are implemented in a timely fashion. Contacting CSS is the first step in acquiring the appropriate accommodations to facilitate your learning.
- \* A student found cheating or plagiarizing information will either receive a score of zero on that particular exam or assignment, or a grade of 0.0 in the course. In addition, the Academic Deans will be informed of any such incident. The JC Academic Honesty Policy can be found online at:  
<<http://www.jccmi.edu/administration/deanoffaculty/academicHonestypolicy.htm>>

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

1. Specific instructions 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.
2. You will be expected to 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 all lab materials.
3. 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.
4. Disruptive behavior and loud conversations will not be permitted.
5. You are free to leave the lab when you have completed the assigned materials. Do not disturb others who are still working.
6. 60 points of your final grade will be based on your attitude and effort in lab during the on-site days, as demonstrated by your cooperation and concentration on the in class quizzing. You will receive partial points for attempting to answer as well as additional partial points for correct answers.
7. **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". Lab Rules follow. [BIO 253 students will not be dissecting nor working extensively with the human specimen. Instructor demonstration of the specimen will be part of the course.]

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## Anatomy and Physiology Laboratory Rules

Students' increased education in anatomy results from an experience made possible by the selfless acts of thoughtful individuals who have voluntarily chosen to donate their bodies to scientific study. These donated cadavers are gifts that must be accorded the *dignity* and *respect* they deserve. This respect policy applies to not only the plastinated or wet cadaver, but also skeletal material, human organs and any other previously living organism (e.g. cats).

The rules of the Anatomy and Physiology laboratory are based upon RESPECT, SECURITY, SAFETY and MAINTENANCE.

Students must adhere to the following guidelines when learning from these donated cadavers and other materials in the laboratories.

### **Respect**

- At no time should anyone show any disrespect to the cadavers. Inappropriate or improper behavior and/or comments within and outside the laboratory is/are unacceptable. Faculty have determined a respectful name for the cadaver to preserve a sense of humanity for the specimen, other naming will not be allowed.
- At no time will any dissected cadaver tissue or skeletal materials be removed from the laboratory.
- At no time will food or drink be permitted in the human specimen lab.
- All cadaver tissue will be placed in a tissue bin placed under the dissection table. At no time will any other material (i.e. paper products) be placed in this bin.
- Cadavers will be appropriately draped at all times.
- The right of privacy and confidentiality due all medical patients is extended to our anatomical donors.
- At no time will electronic devices be allowed in the laboratory. Absolutely no pictures or videos are to be taken of the cadavers at any time by students. Faculty may take photographs of specimens for educational purposes. Anonymity of the specimen will be considered when taking photographs.
- Appropriate security measures will be taken and access to the laboratory will be limited to those with an approved academic purpose.

### **Security**

- Keep the doors of the laboratory closed. When class is not scheduled, the doors to the lab will be locked.
- At no time will visitors be permitted into the laboratory without first obtaining approval from the full time anatomy and physiology instructors. Anyone given access to the specimens must have an approved academic purpose.

### **Safety for Working with Wet Cadavers**

- In case of an EMERGENCY, dial **9-911**. Then dial "0" for the operator to report serious injuries. The Security extension is 8620. Phones are located throughout McDivitt Hall. The main office is in room JM 125, extension 8152.
- FIRST AID SUPPLIES are available in JM 121.
- Students who are pregnant, or believe they may be pregnant, are encouraged to discuss their attendance in these labs with their physician.
- Wearing a lab coat will help to protect clothing from splashes and smells.
- Gloves will be worn at all times when working with the cadavers.
- Wearing of glasses in the laboratory instead of soft contact lenses is advised. Please note the site of the eyewash in the laboratory.

- Bare feet are not allowed, and shoes with tops (not sandals) are recommended.
- All used scalpel blades should be disposed of in the provided “sharps” containers. Never dispose of “sharps” waste baskets or garbage cans. All skin cuts are to be thoroughly washed with clean water. Report all injuries to the laboratory instructor in attendance and complete a JC Incident Report.
- Safety procedures are in place to limit exposure to chemicals and subsequent risk; however, each student is responsible for their own health. JC is not responsible for any consequences of exposure to chemical preservative.

### **Maintenance**

- Remember that cadaver dissections will be used again, so tissues should be handled with care. Every effort should be made to keep dissected material, hands, feet and face moist when working with a wet cadaver. The linen shrouds or towels covering the cadavers should be moistened with preservative frequently. All regions not being studied should be draped. When finished or pausing in dissections or observations, completely cover the cadaver.
- Tables should be kept clean and free of excessive tissue.
- Keep the laboratory clean. Individuals are responsible for cleaning up after themselves.

### **Access to Laboratory Outside of Regularly Scheduled Class Hours**

The laboratory is NOT available outside of normally scheduled laboratory time. Occasionally, open laboratory time is scheduled by the laboratory instructors.

*Adapted from: <http://dbs.umt.edu/courses/biol312/labpolicy.htm>*

### **Associate Degree Outcomes (ADOs) for BIO 253**

The Board of Trustees has determined that all JC graduates should develop or enhance certain essential skills while enrolled in the college. The Associate Degree Outcomes for Bio 253 are: ADO 4 (Scientific Reasoning) and ADO 9 (Working in Small Groups).