

HUMAN BIOLOGY - BIOLOGY 132H – FALL 2009

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Website: <http://personal.jccmi.edu/Glenn.Fox/BIO132/BIO132.htm>

Text: Human Biology 11th Ed., S.S. Mader

Lab Manual: Photographic Atlas for the Anatomy & Physiology Laboratory 6th Ed., Van de Graaff, Morton & Crawley

Strongly Recommended Optional Materials: Atlas and Dissection Guide for Comparative Anatomy, 6th Ed., Wischnitzer & Wischnitzer.

Human Biology will encompass a wide variety of topics from the philosophy of science, evolution, human evolution, anatomy, basic physiology, genetics, and ontogeny. The bulk of lectures (> 50%) cover human anatomy and physiology. Laboratory exercises focus on comparative anatomy using lamprey, shark, cat, and human specimens. A special emphasis will be on the evolution and function of human anatomical structures. Bio 132 is a logical extension of General Biology (Bio 131), and is an excellent preparatory course for Human Anatomy and Physiology (Bio 155 or Bio 253/254) as well as related courses in the allied health divisions.

Grades: The grade you earn in this course will be based upon total points accumulated on:

- | | |
|------------------------------|---------------------------------------|
| 1) Exams (4 @ 100 pts. each) | 3) Lab Practicals (3 @ 100 pts. each) |
| 2) Quizzes (5-10 pts. each) | 4) Miscellaneous Assignments |

The grading scale is:

95 – 100 %	4.0	75 – 79 %	2.0
90 – 94 %	3.5	70 – 74 %	1.5
85 – 89 %	3.0	65 – 69 %	1.0
80 – 84 %	2.5	60 – 64 %	0.5

You will be expected to keep a record of your grades so that you may calculate your grade at any time. Grades will also be posted to the website so you can verify your scores.

Absence Policy: You are responsible for all assignments, handouts and materials covered in lab exercises. If you must miss a lab exercise or an exam, it is your responsibility to arrange make-up. The privilege of making-up exams will be extended only in the case of emergency, illness, or previously authorized business, and will require proof. 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. 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: As an adult and a college student, you are expected to be able to work and learn independently, and be responsible for all assignments and materials. This is a difficult course, and will cover a tremendous amount of material; that will require a lot of hard work and discipline. You will need to keep up, as the pace of the class is fast, and it will accelerate. There are no quick, easy ways; what you learn here will be directly proportional to the amount of effort you have expended. You are 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:

1. You are expected to keep a complete and well-organized notebook of notes, assignments, grades and other material covered in readings or in lab. This will not be collected or graded but will be for your benefit since it will provide your main source of information. Always bring your complete notebook to any help session.
2. It is expected that problems that occur because you feel an error has been made, disagree with what has been done, or feel unfairly treated, will be brought to my immediate attention so that they may 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.
4. Student tutors may be available on a need basis, at no cost to the student being tutored. The Center for Student Success in BW 123 is also available to provide resources and help for your classes.
5. Students with documented disabilities who believe that they may need accommodations in this class are encouraged to contact the Center for Student Success in BW 123 or phone 787-0800, extension 8270 as soon as possible to ensure that such accommodations are implemented in a timely fashion.
6. **ADOs** for Biology 132 include: ADO 4: Scientific Reasoning and ADO 9: Working in Small Groups
7. All students are expected to comply with JCC Academic Honesty Policy. The policy can be viewed at <http://www.jccmi.edu/administration/deanoffaculty/academicHonestypolicy.htm> Any students caught or believed to be cheating will receive a 0% for the assignment, and all Academic Deans will be notified of the incident.
8. Your progress and behavior in this class may be shared with members of other JCC programs or other academic programs to which you are applying. Also, if I am contacted for by a prospective employer on your behalf, I will give an honest assessment of your abilities based on your performance in lecture and lab.

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 lab guidelines, and encourage your partners to do the same.

1. Lab assignments will be announced at the beginning of each lab period. Specific instructions will also be given at this time. You will be expected to complete all the assignments that require dissection or lab apparatus during this time. If you run out of time, some of the questions, plus the practical exercises at the end of each unit can be answered later using standard reference books.
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. 25 points of your final grade will be based on your attitude and effort in the lab. Any lab period missed or not worked on conscientiously, in excess of one, will result in the loss of 3 points per lab session.
7. For work with human specimens you will be a requirement to sign a **respect policy** prior to participation of any kind.

Fall 2009 Reading, Exam, & Lab Schedule

<u>Date</u>	<u>Readings/Exams</u>		<u>Labs</u>
Aug. 25	Introduction	Ch 1, Life & Science	Intro./Lamprey
Sept. 1	Ch 2, Biochem	Ch 3, Cells	Skeletal I
Sept. 8	Ch 4, System Org	Ch 11, Skeletal Sys.	Skeletal II
Sept. 15	Readings, continued	Readings, continued	Skeletal III
Sept. 22	*Exam 1 (1-4,11)		Lab Practical I
Sept. 29	Ch 5, Cardiovascular Sys.	Ch 6, Blood	Muscles I
Oct. 6	Ch 7, Immunity	Ch 8, Digestive Sys.	Muscles II
Oct. 13	Readings, continued	Readings, continued	Muscles III
Oct. 20	Readings, continued	*Exam 2 (5-8,12)	Visc. Anat. I
Oct. 27	Ch 9, Respiration	Ch 10, Urination/Excr.	Visc. Anat. II
Nov 3	Ch 13, Nervous Sys.	Ch 14, Senses	Lab Practical II
Nov. 10	Ch 15, Endocrine Sys.	Readings, continued	Cardiovascular I
Nov. 17	*Exam 3 (9,10,13,14,15)		Cardiovascular II
Nov. 24	Ch 18, Cell Cycle	Thanksgiving Break	No Lab
Dec .1	Ch 20, Genetics	Ch 22, Evolution	Nervous I
Dec. 8	Exam 4 (16,18,20,22)		Lab Practical III

* Specific exam dates are subject to change. Changes will be announced in class and on the website; you will be responsible for the material by the date listed.

* See course website <http://personal.jccmi.edu/foxglennm/BIO132/BIO132.htm> for announcements, grades, schedule, etc.

* See website http://personal.jccmi.edu/FoxGlennM/introductory_assignment.htm for introductory assignment.

* Answers to chapter Preview Questions must be electronically submitted prior to the dates listed above.

Please check the webpage of the Office of the Registrar for ADD/DROP deadlines as well as the last day to WITHDRAW.

Human Biology 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 BIO 132/155 (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 JCC Incident Report.

- Safety procedures are in place to limit exposure to chemicals and subsequent risk; however, each student is responsible for their own health. JCC 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 may be scheduled by the laboratory instructor.

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

Human Biology Student Profile and Learning Contract (Keep for your own records)

Name (Last, First) _____ Date _____

Address (include ZIP) _____

Phone #(s) () _____ Email _____

Earned College Degrees(s) / Date(s) _____

Vocational Objective _____ Major _____

What other science courses do you plan to take at JCC? _____

What are your expectations of this class?

I have read the syllabus, and understand the items and schedule that are indicated in that document. I would like clarification or more information on the following:

As a student taking the Human Biology course, I understand my responsibilities as follows:

- I am taking this course to improve my knowledge in this subject.
 - I understand that this is a very difficult college level course and is not an “easy” course.
 - This course builds upon chapters covered, and falling behind will make the course more challenging.
 - Attendance and being to class on-time are critical to my success in this course
 - I will help my fellow students understand the course material.
 - I understand that if I cheat, it may affect my ability to obtain certain jobs in health care or with the government for the rest of my life.
 - If I need help or have special problems, I will see the instructor, or request a tutor before I fall too far behind.
 - I understand that, while all sections of Bio 132 strive for uniformity, there are particular nuances of policy and grading which are unique to my section, and perfect uniformity across all sections is impossible.
 - If I have a complaint about the course, I will first discuss it with the instructor as per JCC policy.
 - I will contribute to classroom and laboratory discussions.
 - If at any time I feel that something is interfering with the learning environment, I will bring it to the instructor's attention privately so that the instructor can attempt to remedy the situation.
 - I will keep a record of my grades and notify the instructor immediately if I feel that an error has been made, or I don't understand why I received a particular grade.
 - I will familiarize myself with the “study hints” on the Science Department Web page @ jccmi.edu/Departments/Science/
 - I will contribute to the learning environment for all.
 - I will read and familiarize myself with the Human Specimen Policy/Laboratory Rules
 - I understand that ANY violation of Human Specimen Policy/Laboratory Rules will reduce my grade to a 0.0 for the semester.
 - I understand that I will receive a 0.0 unless this contract is returned to Dr. Fox by the Add/Drop deadline.
- I understand and agree to this learning contract.

Print Name _____ Signature _____ Date _____

Human Biology Student Profile and Learning Contract (Turn In)

Name (Last, First) _____ Date _____

Address (include ZIP) _____

Phone #(s) () _____ Email _____

Earned College Degrees(s) / Date(s) _____

Vocational Objective _____ Major _____

What other science courses do you plan to take at JCC? _____

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Print Name _____ Signature _____ Date _____

(over, please)

Laboratory Participation Contract

I the undersigned, acknowledge, appreciate and agree that:

1. There are inherent risks involved with participation in laboratory activities, and I choose to voluntarily participate with full knowledge that said may potentially be hazardous to me. I agree to follow the safety procedures outlined above and all instructions of my instructors. I understand that I may be forbidden from participating in the laboratory session and future laboratory courses if I violate any safety rule or procedure.
2. I voluntarily assume full responsibility for any risk of personal injury, including death, which may be sustained by me as a result of my participation. There may also be other risks which are not fully known or readily apparent.
3. I hereby release, waive, and discharge College and its Board of Trustees, its officers, agents, employees and representatives from all claims, demands, liabilities, rights and causes of action of whatever kind or nature, that may result from or occur during my participation, whether caused by negligence of the College, its Board of Trustees, officers, agents, employees or representatives or otherwise. I also agree to indemnify and hold harmless the College for any loss, liability, damage or costs, including court costs and attorney's fees that may occur as a result of my negligent or intentional act or omission while participating in this course.

I HAVE CAREFULLY READ THIS RELEASE OF LIABILITY AND ASSUMPTION OF RISK AND HAVE HAD SUFFICIENT TIME TO SEEK EXPLANATION OF THE PROVISIONS CONTAINED ABOVE. AFTER CAREFUL CONSIDERATION, I SIGN THIS DOCUMENT VOLUNTARILY AND WITHOUT ANY INDUCEMENT.

Print Name _____ Signature _____ Date _____