



Human Biology Online

Bio 132

Winter 2019

Number of Credits: 4

Days Class Meets: N/A

Meeting Times: N/A

Location: This class is entirely online

Instructor: Mikayla Orton Thatcher, PhD

Office: N/A

Contact Email: thatchemikaylao@jccmi.edu

Office Hours: By Appointment

Online: Course uses JetNet (Moodle) and McGraw-Hill Connect. Contact Solution Center for technical support.

Course Description

Students focus on the structure and function of the human body, the unity and diversity of life, the nature of scientific inquiry, and the principles and processes of evolution as well as contemporary issues that relate to biology. Course includes an at-home laboratory component which focuses on human anatomy. BIO 132 is an excellent preparatory course for Human Anatomy and Physiology (Bio 253/254) as well as related courses in the allied health divisions.

Prerequisite(s)

ENG 085* and MAT 033* or higher

Course Goals

Bio 132 aims to provide students with a basic understanding of each of the body systems, as well as how body systems work together to maintain health. Many students take this course as a prerequisite for allied health programs, or in preparation for the 200-level Anatomy & Physiology I & II courses.

Course Objectives

Student will demonstrate – through both factual lecture exams and laboratory practical identification – their understanding of the following topics:

1. Differentiation of living from non-living things, using characteristics of life
2. Levels of organization in organisms
3. The scientific method; differentiate science from other epistemologies
4. Basic chemistry and biochemistry

5. Cell parts and functions; metabolism
6. The organization of the body systems and list the systems and their functions
7. Bones and major bony structures of the human skeleton, skeletal tissue, & processes of growth and repair
8. Movements at synovial joints
9. Structure of skeletal muscles and major steps in contraction resulting in movement; names of selected muscles
10. Components and functions of the organs of the cardiovascular system; mechanisms of homeostatic control
11. Components and functions of the immune system organs and the mechanisms of defense
12. Components and functions of the digestive system organs and the mechanisms of digestion, absorption, elimination
13. Components and functions of the respiratory system organs and mechanisms of gas exchange & transport
14. Components and functions of the urinary system organs, process of urine formation, & body fluid balance
15. Components, organization, and functions of the nervous system organs, & basic steps in neuron action potentials
16. Components and functions of sensory reception
17. Components and functions of the endocrine system organs
18. Components and functions of the male and female reproductive system organs
19. Mitosis and Meiosis, the basic steps in protein synthesis; and phases of the cell cycle
20. Components and mechanisms in inheritance and evolution

The course goals and objectives incorporate specific General Education Outcomes (GEOs) established by the JC Board of Trustees, administration, and faculty. These goals are in concert with four-year colleges and universities and reflect input from the professional communities we serve. GEOs guarantee students achieve goals necessary for graduation credit, transferability, and professional skills needed in many certification programs. The GEOs and course objectives addressed in this class include the following:

GEO 4 (Core Competence): Demonstrate scientific reasoning

Textbook

- Human Biology 15th Ed., S.S. Mader.

Text Book Zero! *This text is available in a digital format. Access to the online digital textbook is included in the course fees.* You will be using JetNet to access the eBook and Connect. You may opt to purchase a loose-leaf edition of the textbook either from the JC bookstore or through the Connect site.



Course Content

The course content is delivered to you via the textbook. Links to video lectures are provided for some topics, but not all topics covered have an associated video. To master the content, you will be required to

read the assigned textbook chapter(s). This will take you approximately 3-5 hours/week just to read the chapters and watch the videos. Additional assignments will help you master the material and test yourself on your understanding of the concepts. **You should expect to spend at least 12 hours per week reading and studying.**

Student Responsibilities

- Students are required to purchase 1 pack of small, arrow post-it notes.
- Students are expected to provide stable internet access and the expertise to use technology for this course.
- Students will be required to submit photos/PDFs of dissections and completed worksheets. Computer issues on the student-side (problems printing, internet service interruption, no paper, cannot locate document) are not a valid excuse for missing a deadline. Server-side issues (JetNet problems) will result in the instructor making reasonable accommodations for students, but any such issues must be documented by the JC Solution Center.
- Students are required to submit their work on time. Late work is not accepted
- LearnSmart assignments are due at 11:55pm on the day specified. The computer will close the submission window at this time. It will not let you submit your work even 1 second late. I suggest you make sure you give yourself plenty of time to submit your assignments *before* they are due. Your two lowest LearnSmart assignment scores will be dropped, so if you are sick, your computer dies, your internet goes down, there is a power outage, etc., you can miss 2 assignments are still not lose points
- **Use of the human materials and dissection mandates a requirement to sign the LEARNING CONTRACT prior to participation of any kind.** You must read and accept the Human Specimen Respect Policy and the “Human Biology Learning Contract”. These can be found on the course JetNet site. [BIO 132 students will not be dissecting nor working extensively with the human specimen, however they will be participating in dissection of animal specimens]. The Human Biology Learning Contract is **due at the beginning of the 2nd lab period. Failure to complete and return this will result in an instructor initiated withdrawal.**

Testing

Students close to our Jackson, Michigan campus may take their exams at the JC Testing Center. If this is not convenient for you, you must identify a testing center that will proctor your exams. All students must complete and submit a Testing Center form and email this to the instructor by the date indicated. All testing centers must be approved by the instructor. **Libraries are not acceptable testing sites.** All fees associated with testing are the responsibility of the student. Students are responsible for following the rules (including scheduling requirements) of their chosen testing center. Students may change their testing center at any time by completing a new Testing Center Form and email it to the instructor in a timely fashion.

Grading Procedure

The grade you earn in this course will be based upon total points accumulated. You are not graded based

on how hard you work, **you are graded on the points you earn by demonstrating mastery of the material.** The points (695 total) in this class are made up of:

- 5 Exams
 - made up of a combination of lecture material and structure ID (520 points)
- LearnSmart Assignments (80 points)
- Module assignments (85 points)
- Forum participation (10 points)

The majority of the points earned in this class are on the exams. Your best bet is to make sure you do well on the exams.

Grading Scale

GPA	GRADE RANGE	POINTS
4.0	93-100%	646-695
3.5	87-92.9%	605-645
3.0	83-86.9%	577-604
2.5	77-82.9%	535-576
2.0	73-76.9%	507-534
1.5	67-72.9%	466-506
1.0	63-66.9%	438-465
0.5	57-62.9%	396-437
0.0	0-56.9%	<396

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.

Academic Honesty Policy

Academic Honesty is defined as ethical behavior that includes student production of their own work and not representing others' work as their own, by cheating or by helping others to do so.

Plagiarism is defined as the failure to give credit for the use of material from outside sources.

Plagiarism includes but is not limited to:

- Submitting other's work as your own
- Using data, illustrations, pictures, quotations, or paraphrases from other sources without adequate documentation
- Reusing significant, identical or nearly identical portions of one's own prior work without acknowledging that one is doing so or without citing this original work (self-plagiarism)

Cheating is defined as obtaining answers/material from an outside source without authorization.

Cheating includes, but is not limited to:

- Plagiarizing in any form
- Using notes/books/electronic material without authorization
- Copying
- Submitting others' work as your own or submitting your work for others
- Altering graded work
- Falsifying data
- Exhibiting other behaviors generally considered unethical
- Allowing your work to be submitted by others

Help

Tutoring services and Supplemental Instruction may be available..

It is important to contact a Center for Student Success professional prior to the start of the semester in order to receive accommodations in a timely manner. While we will make every effort to coordinate accommodations in a timely manner, failure to self-identify prior to the start of the semester may delay notification to instructors and timeliness of acquiring accommodations. Accommodations do not automatically carry over to the next semester.

<https://www.jccmi.edu/center-for-student-success/accommodations-for-students-with-disabilities/>

Calendar

*****This schedule is tentative and subject to change at the instructor's discretion*****

Week	Dates	Chapter	Module	Lab Practical Info
1	1/14	1.1, 1.3 & 4.7	Welcome Levels of Organization & Scientific Method	Body planes, Body regions, Anatomical Terms
2	1/20	2	Chemistry	
3	1/27	3	Cells	Axial Skeleton I
	2/3 – 2/9		Exam 1 (Ch. 1, 4.7, 2, 3)	
4	2/3	4	Tissues	Axial Skeleton II
5	2/10	12	Skeletal	Appendicular Skeleton
6	2/17	13	Muscular System	Review
	2/24 – 3/2		Exam 2 (Ch. 4, 12, 13, LP 1)	
7	2/24	5 & 6	Blood & Cardiovascular	Human Muscle ID
8	3/3	5 & 6	Blood & Cardiovascular	Heart Dissection
	3/10		Spring Break	
9	3/17	7 9	Lymph & Immune Digestive	Vessel ID
	3/24 – 3/30		Exam 3 (Ch. 5, 6, 7, 9, LP 2)	
10	3/24	10 & 11	Respiratory/Urinary	Respiratory/Urinary ID
11	3/31	14	Nervous system	Brain models ID
12	4/7	15 & 16	Special Senses/Endocrine	Eye dissection
	4/14 – 4/20		Exam 4 (Ch. 10, 11, 14, 15, 16)	
13	4/14	19	Cell Cycle and Division	Mitosis/meiosis
14	4/21	22.1 & 22.2	DNA Replication & Gene Expression	
15	4/28	17.1 – 17.4	Reproductive System	Reproductive ID
16	4/28 – 5/3		Exam 5 (Ch 19, 22, 17, LP 3)	

Important Dates: Winter 2019

DATE	EVENT
JAN. 14, 2019	DAY AND EVENING CLASSES BEGIN
FEB. 1, 2019	IN-SERVICE DAY. NO CLASSES
MARCH 11 - 15	SPRING BREAK. NO CLASSES
MAY 4, 2019	COMMENCEMENT
MAY 5, 2019	END OF WINTER SEMESTER
MAY 7, 2019	GRADES DUE

Attendance Policy

In compliance with Federal Title IV funding requirements, as well as college initiatives, reporting of student participation in classes will occur at three designated times each semester. Instructors will assign one of three non-transcripted letter symbols to each student during each reporting period (see below). Students identified as no longer participating will be dropped or administratively withdrawn from the class, and students identified as needing academic assistance will be contacted.

Participation/Progress Symbols

- H – The student is not doing acceptable work and needs **H**elp to be successful.
- Q – The student has not participated and the instructor believes they have unofficially withdrawn (**Q**uit). These students will be dropped/withdrawn from the class.
- V – The instructor **V**erifies that the student is participating and doing acceptable work.

Revisions

Due to unforeseen events, some revisions may be necessary during the course. Students will be notified of any changes, and a revised syllabus will be posted.

Late Assignments

Instructor reserves the right to award zero or reduced credit for any and/or all late assignments.

Extra Credit

There are no extra credit opportunities in the course, as we think your time is better spent learning the material.