



Bio 132 F21

Course Information

- Number of Credits: 4
- Days Class Meets: Thursday (optional)
- Meeting Times: 9:00 – 10:30 am EST
- Location/Venue: Zoom – links will be sent via Remind app

Instructor Information

- Instructor: Jenna Pruette
- Contact Email: pruettejennife@jccmi.edu
- [Remind App sign up](#)
- Online Office Hours: TBD

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* or 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.

Course Objectives

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

1. Levels of organization in organisms
2. The scientific method; differentiate science from other epistemologies

3. Basic chemistry and biochemistry
4. Cell parts and functions; metabolism
5. The organization of the body systems and list the systems and their functions
6. Bones and major bony structures of the human skeleton, skeletal tissue, & processes of growth and repair
7. Movements at synovial joints
8. Structure of skeletal muscles and major steps in contraction resulting in movement
9. Components of blood and blood typing
10. Components and functions of the organs of the cardiovascular system
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 the endocrine system organs
17. The cell cycle, Mitosis and Meiosis
18. Components and functions of the male and female reproductive system organs

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 16th 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

- Bio 132 Course pack and Review Questions pack
- Online students are required to fill out [this form to register for your lab kit](#).

If you have questions about materials, please contact the [Jackson College bookstore](#)

For account billing questions, please contact the [Jackson College Cashier](#)

Exam Process

To protect the fairness and integrity of the exams, students will be required to take exams using Respondus Lockdown Browser and Monitor. This is an online test proctoring software that requires a download to your computer. Training and practice of Respondus technology will be provided in advance of the first exam. You must provide a Mac or PC that has a webcam and microphone (see below for minimum system requirements)

- Purchase of necessary hardware (i.e.a webcam) is the student's responsibility, and must be done in time for the first exam
- If you do not have this technology, please contact your instructor right away
- Chromebook computers are not compatible with Respondus and cannot be used for exams
- Training and practice of Respondus technology will be provided in advance of the first exam.
- Students are expected to complete the Respondus Practice quiz on time. This is to give our IT department time to help troubleshoot issues **before** exam 1 begins.
- Failure to complete the Respondus quiz on time may result in instructor-initiated drop.
- If you do not have a Mac or PC and need a computer, you can complete the [Loaner Laptop Application](#)

Grading Procedure

The grade you earn in this course will be based upon the total **points** you accumulate throughout the course. **You are not graded on how hard you work, you will need to demonstrate mastery of the material to earn points.** The points (635 total) in this class are made up of:

- 7 Exams (350 points)
 - lecture material
- 2 Lab practicals (100 points)
 - Structure ID
- Connect Assignments (80 points – lowest 2 are dropped = 70 points)
- Module quizzes/assignments/activities (115 points)

The 7 mini-exams contain 50 multiple choice questions, and you have 50 minutes to complete each of them. The mini-exams are cumulative: they contain content from previous exams. Each will be open for a 3 day window – you can take the exam at any point during that open window. New this semester: I will be allowing a SECOND ATTEMPT on all mini-exams. This means that if you take the mini exam on the first day of the window, you can see which areas you still need to study and re-take it on day 3. The highest grade will be kept. I am hoping this will help assist you in learning the content and reduce exam anxiety. There should be an appropriate amount of time between attempts to do this (you should NOT be taking the mini exams twice in a row). If I observe abuse of this policy, you will hear from me and may lose the privilege of the re-take.

There are also 2 lab practicals during the course. Each lab practical has a list of structures you need to identify. The lists are posted under “Most Important Things” and are also in the back of your course pack. Each lab practical is worth 50 points. There are no re-takes on lab practicals.

Calculating Grades

The grade book displays both your total points earned and your percentage. During the course, the points you earn on each assignment, quiz, exam etc. add up to become your total point score. At the end of the course, I use the chart below to determine what grade to award based on your total point score.

However, in the middle of the semester this chart is not helpful, because the number in the chart assumes all points have been allocated. For example, if you are ½ way through the course, you could have missed no points but still be a long way from the number of points you need for a 4.0. If you use the chart, you might

be bummed out because you don't look like you are passing. In this case, you can use the percentage grade in the gradebook as a rough estimate of how well you are doing. The average calculates how many points you have earned out of how many points were available. If you haven't missed any points, your average would be 100%, and you are doing GREAT!

It is important to remember that the course has a total of 635 points. If you are scoring 75% on all your exams and suddenly pull out a 95% on one exam, your average may not change much. The average is a measurement of how well you are doing overall, not how well you did on the last thing, and therefore doesn't usually change much unless you suddenly start doing much better (or much worse).

Near the end of the semester, students often want to figure out if it is still possible to get the grade they want....

How to figure out if you can get the grade you want:

1. Find the number of points you need for the grade you want in the chart below
2. Find your total points earned in the JetNet grade book
3. Subtract Points needed for grade - Total points earned (#1 - #2)
4. This is how many points you still need to earn
5. What is important now is how many points are left. Add up whatever unassigned points are left. (you can find this by looking in the syllabus – each assignment has a point total in parenthesis next to it, all exams are worth 50 points. Add up what we still have to do in the semester).
6. Compare this number to the number you found in #3.

If there are only 50 points left, and you need 75 points, you are not going to get the grade you want. If there are 200 points left and you only need 50, you are in good shape to get the grade you want.

Points are listed in parentheses next to each assignment in the schedule

All exams are worth 50 points

Grading Scale

Grade	%	Min. points	Max. points
4.0	93%	591	635
3.5	87%	552	590
3.0	83%	527	551
2.5	77%	489	526
2.0	73%	464	488
1.5	67%	425	463
1.0	63%	400	424
0.5	57%	362	399
0.0	<57%	<361	

At the end of the course, I use the points displayed in this chart to award final grades. I do not grade based on percentages. If you didn't earn the minimum points, you will not get that grade.

If you need a 3.0 in the class, you need to earn at least 527 points. **There is no rounding up.**

Your running average is available in the JetNet gradebook at all times. You can use this average to estimate how you are doing by comparing the percentage to the grading scale. See more information above under "Calculating Grades" above

Assignment Submission

Late assignments are not accepted unless in case of documented family or medical emergency.

Submission of an assignment signals to me that you are ready for your assignment to be graded. If the assignment is graded in advance of the due date, you may not “redo” the assignment for a higher score even if the due date is not yet passed.

Extra Credit

The majority of the points earned in this class are on the exams. This is how you demonstrate your mastery of the material. Per Science Department policy, there is no extra credit offered in this class, as we feel that your time is best spent learning and practicing the material. However, as it is possible to have a “bad day” I will allow you a second attempt on the mini-exams. If you take your exam in advance of the due date, you can retake it once before the exam period closes. The highest score will count. Once the exam period closes, there are no more attempts allowed. This is a privilege that is meant to assist your learning. There should be adequate time between attempts for you to review and study content. If I observe abuse of this policy, the privilege may be revoked. No second attempts are allowed on the lab practicals.

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
- Allowing your work to be submitted by others
- Altering graded work
- Falsifying data
- Exhibiting other behaviors generally considered unethical

Requirements for Online Testing

- Students must perform an environment check before starting all exams
- Students must stay on camera during the entire exam
- Students may not use any other devices (phone, computer, iPad) during exams.
- Students may not use any additional materials during exams
- Students may not leave the room during exams

If any of these requirements are violated, the instructor may reduce the grade, negate the grade or require a retake. **All retakes must be completed within 2 days.**

Issues with suspicious behavior on an exam will be handled as follows:

- Clear evidence of wrongdoing 1st offence = 0 on exam
- Clear evidence of wrongdoing, 2nd offence = 0 in course
- Some evidence of wrongdoing = retake of exam (within 2 days), reduction of score, or 0 on exam

Accessibility

Jackson College understands that cultivating a broadly diverse community is crucial to our educational mission and to our foundational commitment to leadership and service. Jackson College is fully committed to ensuring our courses are accessible to everyone including those with disabilities. We are currently working to increase accessibility and usability of our course materials in order to meet or exceed the requirements of Section 508 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1991 and Web Content Accessibility Guidelines (WCAG) 2.0. For more information about Jackson College's efforts to ensure accessibility please visit the [Jackson College accessibility web page](#).

If you have an accessibility need in any of our classes please e-mail the Center for Student Success at JCCSS@jccmi.edu or visit the [Center for Student Success web page](#).

At the Center for Student Success (CSS), we are committed to providing all students the opportunity to achieve academic success by providing a variety of support services free of charge to Jackson College students. This includes, but is not limited to, peer and faculty tutoring, mental health referral, temporary assistance with transportation, various workshops/seminars, and the TRIO program.

In addition, the CSS staff is committed to adapting the College's general services to meet the individual needs of otherwise qualified students with disabilities, for the purpose of providing equal access to all programs and facilities.

Help

Help is available online! To find the current tutors and reserve a time for help, go to the [Tutoring at Center for Student Success](#) page. Computer trouble can be resolved by calling the Solutions Center at 1 (517) 796-8639. Loaner laptops may be requested by filling out the [Emergency Loaner Laptop form](#).

Academic Advising

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. Please e-mail JCCSS@jccmi.edu or visit the [Accommodations for Students with Disabilities](#) web page.

Student Responsibilities

- Students are expected to check the Remind app every day for announcements, updates and changes to the schedule.
- Students are expected to arrange pick-up or delivery of their dissection kit from the JC bookstore in time for the assignments. Students must use the approved materials (skeleton, heart and kidney specimens) provided in the dissection kit for assignments. No substitutions can be made. Students who do not have their kit will not receive credit for dissection/labeling assignments. Students that do not complete the dissection activities will not receive points for those activities.
- All work must be submitted via JetNet. No work will be accepted via email. 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.
- Connect assignments are due at 11:55pm EST on the day specified. The computer automatically submits whatever you completed at this time. Your two lowest Connect assignment scores will be dropped, so if you are sick, your computer crashes, your internet goes down, there is a power outage, etc., you can miss 2 assignments and still not lose points
- The activities are all worth different numbers of points and it is impossible to keep track of which is your lowest score. Therefore, no activity grades will be dropped. All assignments are due at 11:55pm EST
- Missing an exam: 1st extension
 - Students that miss an exam due to medical or family emergency may be required to show documentation of emergency before an extension is granted.
 - Students that miss an exam due to technological issues will be required to submit proof of trouble that occurred during the exam period. You must contact me or the solution center **while the exam is open**.
 - An extension due to poor planning such as forgetting about the exam, getting the date wrong, going on vacation, failing to reschedule your work calendar, etc. may result in a reduction of exam score by up to 20%.
 - Requests for extension must be made within 2 days of missing the exam and retakes must be completed within 24 hours of the granted extension.
 - Students that miss an exam and do not contact me within 2 days will receive a 0.
- Missing an exam: 2nd extension
 - A second request for exam makeup will result in a reduced score of up to 40%

Attendance- Participation Policy

Just as in a traditional classroom course, regular class participation and keeping up on the reading and assignments is strongly correlated with success in college courses. It is my recommendation that you plan to do your assignments BEFORE the last day they are due. If problems occur, there is time to fix them before the deadline.

In compliance with Federal Title IV funding requirements, as well as college initiatives, I will be monitoring student participation on a regular basis and officially reporting student activity throughout the term to assure compliance with college policy and federal regulations. It is imperative that you log in to the course and actively participate by the first due date to validate your enrollment in the course. Students identified as no longer participating – at any point in the semester -- will be dropped or administratively withdrawn from the class. One example of non-participation is a failure to log into JetNet or missing a significant proportion of assignments for 1 week. A student dropped for non-participation will not be re-admitted to the class.

Being withdrawn from a course can have an impact on financial aid, billing, athletic eligibility, and housing status. As a college student you are responsible for how your participation impacts your academic progress; the accountability lies with you.

Important Dates

Date	Event
8/30/21	Classes begin
9/6/21	Labor Day Holiday-No Classes
Wednesday 11/24 - Sunday 11/28/21	Thanksgiving holiday-No Classes
12/16/21	End of Fall Semester

Caveat

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.

Calendar

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

Note: This calendar does not include Quizlet or video links. For a more comprehensive list, please see the checklist for each module.

Points for each activity are listed in parentheses next to each assignment

All exams are worth 50 points

Week	Due Date	Modules (Chapter)	Assignments and Quizzes Due
1	9/1	Welcome	Introduction Quiz Remind App Sign Up Register for Connect
	9/2	Welcome	Respondus Practice Quiz PDF Practice Assignment
		Levels of Organization & Scientific Method (Ch. 1.1, 1.3)	
	9/3		Connect Ch. 1 (5)
2	9/8		Connect Ch. 2 (5)
	9/12	Chemistry (Ch. 2)	Optional Chemistry Quiz
	9/11 -13	Mini-exam 1 (Ch. 1 & 2)	
3	9/15		Connect Ch. 3 (5)
	9/16	Cells (Ch. 3)	Transport Quiz (15)
4	9/22		Connect Ch. 4 (5)
	9/23	Tissues (Ch. 4)	Homeostasis Activity Submission (5) Homeostasis Quiz (5)
	9/25	Practice for LP #1	Anatomical Terms Quiz (5)
	9/25-27	Mini-exam 2 (Ch. 3 & 4)	
5	9/29		Connect Ch. 5 & 6 (10)
	9/30	Blood (Ch. 6)	Blood Types Quiz (5)
	10/1	Cardiovascular (Ch. 5)	Color/Label the Heart Activity (8) Heart Dissection Assignment (3)

Week	Due Date	Module	Assignments and Quizzes Due
6	10/6		Connect Ch. 7 (5)
	10/7	Vessels	Vessels Road Map Activity (6)
		Lymph & Immune (Ch. 7)	
	10/9	Practice for LP #1	Heart and Vessels ID Quiz (5)
	10/9 - 11	Mini-exam 3 (Ch. 5, 6 & 7)	
7	10/13		Connect Ch. 9 (5)
		Digestive (Ch. 9.1 - 9.5)	
8	10/20		Connect Ch. 10 (5)
	10/21	Respiratory (Ch. 10)	Respiratory Quiz (5)
9	10/27		Connect Ch. 11 (5)
	10/28	Urinary (Ch. 11.1-11.4)	Color/Label Kidney Activity (5) Kidney dissection Assignment (3) Urinary Processes Quiz (3)
	10/29	Practice for LP #1	DRU Quiz (3)
	10/30-11/1	Mini-exam 4 (Ch. 9, 10, 11) and Lab Practical 1	
10	11/3		Connect Ch. 12 (5)
		Skeletal (Ch. 12)	
	11/5	Axial Skeleton I	Axial Skeleton I Quiz (5) Anatomical Terms Quiz #2 (3)
11	11/10		Connect Ch. 13 (5)
		Muscular System (Ch. 13)	
	11/12	Axial Skeleton II	Axial Skeleton II Activity (5) Axial Skeleton II Quiz (3) Joint Movement Quiz (2)
	11/13-15	Mini-exam 5 (Ch. 12 & 13)	

Week	Due Date	Module	Assignments and Quizzes Due
12	11/17		Connect Ch. 14 (5)
		Nervous system (Ch. 14.1, 14.2, 14.4)	
	11/18	Appendicular Skeleton	Appendicular Skeleton Activity (5) Axial & Appendicular Skeleton Quiz (3)
	11/22-26	Thanksgiving Holiday	
13	12/1		Connect Ch. 16 (5)
		Endocrine (Ch. 16.1-16.5)	
	12/4-6	Mini-exam 6 (Ch. 14 & 16) Lab Practical #2	
14	12/8		Connect Ch.19 & 17 (10)
	12/10	Cell Cycle and Division (Ch. 19.1-19.5)	Meiosis/Mitosis Quiz (8)
15	12/13	Reproductive System (Ch. 17.1 - 17.4)	Menstrual Cycle Quiz (5)
	12/13-15	Mini-exam 7 (Ch 19 & 17)	