

Human Anatomy & Physiology I BIO 253.I1 Winter 2021



Instructor: Jason Jakubas D.C.

Class Meets: Online

Meeting Times: Mon/Wed 1-3 or Tues/Thur 6-8

Number of Credits: 4

***Contact Email:** jakubasjasong@jccmi.edu

Office Hours: Big Blue Button session by appointment.

Online: Course uses JetNet and McGraw-Hill Connect (accessible through JetNet); contact JC Solution Center for tech support.

*Email is the best route to contact me. To the best of my ability, email replies to coursework questions will be sent within 12 hours of message receipt (and usually **much** quicker).

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: MAT 040 or higher

Course Considerations

This is a lab science course so should be thought of as two courses. The reading level is difficult. **It is not recommended for students who have not had prior college-level science. Chemistry and biology are strongly suggested prior to this course.** Students earning a final grade of 3.0 or higher report studying **at least 15 hours per week for this one course** so please plan accordingly (and that is for a traditional 15-week 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 lot of material which will require hard work and discipline. You will need to keep up as the pace of the class is fast, and each day's class will be based on material from the previous days. **There are no quick, easy ways to pass.** 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.

Class Sessions: This is designed as a fully online course; however, there will be in-person recitation sessions offered through JetNet's "Big Blue Button" (that will mirror face-to-face recitation sessions) for explaining particularly tough topics, practice questions, test previews, and student Q&A. There will be at least 2 sessions per week with the days and times chosen based on a survey of students' schedules. All sessions will be recorded for viewing if you can't attend.

Exam Process: To protect the integrity and fairness of exams, students will be required to take exams using **Respondus Lockdown Browser and Monitor**. This online proctoring service requires students a download to your computer. (Chromebooks do not allow the download so CANNOT be used for these exams.) The computer/laptop must have a functioning webcam and microphone. There is a practice test available to ensure your computer will work with the system, so be sure it is completed before the end of the first week. If you cannot access a computer that will work with Respondus, contact the instructor immediately to find options for you to succeed in the course.

Course Objectives

By the end of the semester, students will demonstrate – through both factual lecture exams and laboratory practical identification – their understanding of the following topics (with focus on the human body):

1. Anatomical terminology
2. Levels of organization in organisms
3. Homeostasis and feedback loops
4. General chemistry and biochemistry basics
5. Structure and function of biological membranes
6. Cell structure and function
7. Transcription, translation and the cell cycle
8. Structure and function of major body tissues (histology)
9. Structure and function of the skin and related integumentary system structures
10. Formation and homeostasis of the major types of bone
11. Bones and major bony structures of the human skeleton
12. Types, and structures, of articulations and movements performed by each
13. Structure of skeletal muscles and mechanisms of muscle contraction
14. Identification of the movement(s) generated by contraction of specific muscles
15. Interaction between muscles, tendons, ligaments and bones in generating movement
16. Control of action potential generation in neurons
17. Role of neuroglia in nervous system structure and function
18. Structure and function of the divisions and components of the human nervous system
19. Interaction of various brain regions in maintaining life and regulating interaction with the world
20. Development, growth and repair processes in skin, bone, muscle and nervous tissue.

GEO 4 (Scientific Reasoning). The course goals 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.

Attendance Policy

In compliance with Federal Title IV funding requirements, as well as college initiatives, I will be submitting participation information to assure compliance with college policy and federal regulations. Not attending recitation sessions and/or completing weekly assignments will result in you being withdrawn from the course. 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 class participation impacts your academic progress; the accountability lies with you.

Textbook

Anatomy & Physiology: The Unity of Form and Function, 9th Ed., Saladin, McGraw-Hill (Access to the e-text and all online learning materials come with Follett Access. See email from bookstore for access code.) If you opted out of Follett Access, you can purchase access online or use an alternate text. [Other A&P textbooks for a full-year class (25-29 chapters) are acceptable (e.g. Tortora, Martini, Marieb, Patton, Seeley, etc.). An online A&P text is available at www.openstax.com, but it is missing some important information from the Nervous System section.]



[Text Book Zero! ...The text is available in digital format.]

Lab Manual for Anatomy & Physiology I, Bradford & Visser -- on JetNet [print copy available from JC Bookstore]

Lecture Outlines (summary of the material you need to learn for “class exams”) – available on JetNet

The text companion site has a phone/tablet app, options for downloading a “forever” pdf copy for reading offline (great if you have shaky internet service) and a “SmartBook” feature for guided reading & study. You will not be responsible for all sections in the text, so if you aren’t using the SmartBook feature be sure to check which sections you can skip.

[If you are using a different text, use the Lecture Outline and Terminology lists to know what to study and what to skip.]

Follett Access

- Please [review the cost of your required materials](#) to determine the best option for you to purchase your materials.
- For more information on the Follett ACCESS Program, you can view the [view the frequently asked questions](#).

If after reviewing the costs, you choose to opt out, you may do so here: www.jccmi.edu/optout. Please note your opt out selection is for your entire semester schedule. You cannot opt out and opt in to individual courses. And you must opt out by the due date for your first class.

Class Starts On:	Opt Out Date:
January 11, 2021	January 14, 2021
February 15, 2021	February 18, 2021
March 15, 2021	March 18, 2021
March 30, 2021	April 2, 2021

If you have questions about materials, please contact the Jackson College Follett bookstore at jackson@bkstr.com. For account billing questions, please contact the Jackson College Cashier at jccashier@jccmi.edu.

Grading Procedure

The grade you earn in this course is based upon total points accumulated on the following:

- 1) Concept & Terminology Quizzes (10 best; @ 5pts each)
- 2) Chapter Overview Question (10 best @ 7.5 pts each)
- 3) "Learning Activities" (5-10 pts. each; your choice from the posted list of possible activities = 50 pts total)
- 4) Lab Practicals (25-100 pts. each)
- 5) Class Exams (5 @ 80 pts. each) 50 minutes each (There will be approximately 800 points in total.)

Grading Scale [You are expected to keep a record of your scores. Grades will be posted on JetNet.]

GPA	GRADE RANGE	GPA	GRADE RANGE
4.0	95-100%	1.5	70-74%
3.5	90-94%	1.0	65-69%
3.0	85-89%	0.5	60-64%
2.5	80-84%	0.0	0-59%
2.0	75-79%		

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

Any student found cheating or plagiarizing information will receive, at minimum, a score of zero for that exam or assignment and may receive a zero for the course. Respondus video recordings will be used as evidence of improper access/use of material during a test. The Academic Deans will also be informed of the incident.

Makeup Policy

You are responsible for all assignments/exams, handouts and materials covered in the course: lecture (theory), recitation and lab. Make-up opportunities for the exams and/or practicals are extended only in the case of emergencies / funerals / hospitalization and require written documentation verifying the cause of the absence. It is your responsibility to contact your instructor for arrangements. **Second and subsequent make-up exams will be awarded only 80% of the earned score. (This does not apply to emergencies.)** The instructor reserves the right to award zero or reduced credit for any and/or all late assignments.

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

- **The text's companion website** is available -- see instructions for using all the materials on the class JetNet site.
- Tutors and additional free services for academic success are available at the Center for Student Success (CSS). CSS can also help with writing, study skills, test anxiety, math and reading concerns.
- Students with documented disabilities should contact the Center for Student Success as soon as possible to ensure that accommodations are implemented in a timely fashion. Accommodations do not automatically carry over to the next semester. <https://www.jccmi.edu/center-for-student-success/accommodations-for-students-with-disabilities/>
- **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

Class Schedule Expectations

- Exam and Practical dates are subject to change (but will not be likely)
- Complete your study of the chapters, quizzes and assignments by the posted due dates (see schedule, below).
- **Schedule Changes:** Instructor reserves the right to alter schedule if necessary, at his sole discretion.

Miscellaneous

- All class exams are multiple choice. Lab practicals are primarily structure identification using free-response answers.
- Material for lab practical study will be presented as a combination of textbook images and images uploaded to JetNet. A list of exactly what will be covered on each practical will be posted in JetNet. Correct spelling is expected; deductions will be made for incorrect spelling (if you can't spell the name at least phonetically correct you don't know the name).
- An exam score adjustment MAY be used for each exam. This is a privilege, not an expectation.
- If you think an error has been made, or disagree with what has been done, or feel that you have been treated unfairly, bring it to my immediate attention so the problem can be resolved.
- There will be NO extra credit projects for this course, since it is felt that your time will be better spent studying the assigned materials.
- If circumstances outside your control prevent you from completing one or two exams/practicals by the assigned due date, you might be eligible for an Incomplete and extended time to complete them. Please contact me if you feel this would be appropriate for your specific circumstances.

- **Student Responsibilities**

- Requirements beyond scheduled classes or laboratories, e.g., clinicals, extra credit assignments, TBA sessions, field placement, special project instructions, contract learning conditions, study hours required outside class, unscheduled class meetings, attendance at concerts or other required events.

- **Attendance- Participation Policy**

- For online sections
- Just as in a traditional classroom course, regular class participation and keeping up on the reading and assignments is strongly correlated with survival in college. It is my recommendation that you plan to do your assignments and take your exams 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 within the first couple of days of the term to validate your enrollment in the course. After that, not actively participating in class may result in you being withdrawn from the course. 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.
- **Caveat**
- A statement that advises students that some revisions may be necessary during the course. School closing policies, instructor illness and other procedural improbabilities are described for students.

Calendar

BIO 253: A&P I Calendar of Activities (Expected Schedule*) Section I1 Winter 2021

<u>Week</u>	<u>Dates (Mon-Sun)</u>	<u>Chapter Reading and Topic</u>	<u>Lab</u>	<u>Assignment/Points</u>	
1	January 11 - 17	Chapter 1	Introduction and microscopy	Learning contract (1/17)	5
				Pre-test (1/17)	5
				Term Quiz Ch. 1(1/17)	5
				Anatomic Term Quiz (1/17)	5
				Respodus Quiz (1/17)	5
2	January 18 - 24	Chapter 2	Mitosis and Histology	Term Quiz Ch. 2 (1/24)	5
3	January 25 - 31	Review EXAM 1 (Jan. 29 - 31)	Histology and review for practical	Ch. 1 overview questions (1/31)	7.5
				Ch. 2 overview questions (1/31)	7.5
				Learning Activity 1 (1/31)	10
				Exam 1 (1/31)	80
4	February 1 - 7	Chapter 3	LAB PRACTICAL 1 (Feb. 5 - 7) Bones	Practical 1 (2/7)	25
				Term Quiz Ch. 5 (2/7)	5
5	February 8 - 14	Chapter 4 Review	Bones	Term Quiz Ch. 3/4 (2/14)	5
6	February 15 - 21	EXAM 2 (Feb 19 - 21) Chapter 5	Bones	Ch. 3/4 overview questions (2/21)	7.5
				Ch. 5 overview questions (2/21)	7.5
				Learning Activity 2 (2/21)	10
				Exam 2 (2/21)	80
7	February 22 - 28	Chapter 6	Bones	Term Quiz Ch. 6 (2/28)	5
				Term Quiz Ch. 7 (2/28)	5
8	March 1 - 7	EXAM 3 (March 5-7) Chapter 9	Bones review	Ch. 6 overview questions (3/7)	7.5
				Ch. 7 overview questions (3/7)	7.5
				Learning Activity 3 (3/7)	10
				Exam 3 (3/7)	80
	March 8 - 14	MIDSEMESTER BREAK			

9	March 15 - 21	Chapter 10	LAB PRACTICAL 2 (March 19-21) Muscles	Practical 2 (3/21)	100
				Term Quiz Ch. 8,9,10,11 (3/21)	5
10	March 22 - 28	Chapter 11	Muscles	Term Quiz Ch. 10 #1 (3/28)	5
				Term Quiz Ch. 10 #2 (3/28)	5
11	March 29 – April 4	Review EXAM 4 (April 2-4)	Muscles	Ch. 9 overview questions (4/4)	7.5
				Ch. 10 overview questions (4/4)	7.5
				Ch. 11 overview questions (4/4)	7.5
				Learning Activity 4 (4/4)	10
				Exam 4 (4/4)	80
12	April 5 - 11	Chapter 12	Nervous system Nervous system	Term Quiz Ch.12 #1 (4/11)	5
				Term Quiz Ch. 12 #2 (4/11)	5
13	April 12 - 18	Chapter 13	Muscle and Nervous system review	Term Quiz Ch. 13 (4/18)	5
				Term Quiz Ch. 14 (4/18)	5
14	April 19 - 25	Chapter 14	Lab Practical 3 (April 23-25)	Practical 3 (4/25)	100
15	April 26 – May 2	Review EXAM 5 (April 30 - May 2)		Ch. 12 overview questions (5/2)	7.5
				Ch. 13 overview questions (5/2)	7.5
				Ch. 14 overview questions (5/2)	7.5
				Learning Activity 5 (5/2)	10
				Exam 5 (5/2)	80
				Total	800

- All exam and practical deadlines are 11:55pm the evening of the posted date.
- 12 overview question assignments the best 10 scores will count toward your final grade
- 15 terminology quizzes the best 10 scores will count toward your final grade

Important Dates: Fall 2020

DATE	EVENT
JANUARY 21 2021	FINAL DROP/ADD DATE
APRIL 23 2021	FINAL DATE TO WITHDRAW WITH A "W"
APRIL 5 2021	GRADES DUE