

BIOH 201: Human Anatomy and Physiology I

Spring 2025

Instructor: Scott Taylor

Office Hours: Tuesdays and Thursdays from 4:30-6:00 in the Biology Resource Room (218 LJH)

Email: scott.taylor@montana.edu (please use THIS email – not D2L – to contact me)

Materials: **Anatomy and Physiology, The Unity of Form and Function**, Saladin, 10th Edition
Access to McGraw Hill Connect is required for assignments. Students will have “inclusive access” which will be billed directly to their student account. Students may also ‘upgrade’ their access to include a loose-leaf hard copy, which is highly recommended if you prefer reading on paper.

ADA Compliance: Reasonable accommodation will be provided for all persons with disabilities to ensure equal participation in the course. Persons with accommodations should use this [link](#) to upload accommodation documents. There will also be additional instructions and information found there. If you have further questions, please contact me.

Learning Objectives: We are going to investigate the form and function of the human body, emphasizing biochemistry, cytology, and histology. This will prepare us for studying various body systems: musculoskeletal, nervous, and endocrine. I have made a concerted effort to coordinate lecture and lab topics to increase your overall understanding of the connection between anatomy and physiology. It is my sincere hope you enjoy your experience in this course and that you will find it applicable to both your personal and professional life.

Grading

A **weighted** grading system is used according to the following formula:

3 Unit Lecture Exams @ 50 pts	50%
3 Lab Practical Exams @ 30 pts.	35%
Lecture Connect Assignments	10%
Lab Connect Assignments	5%

Grade	Percent
A	>93.00
A-	90.00 – 92.99
B+	87.00 – 89.99
B	80.00 – 86.99
B-	77.00 – 79.99
C+	72.00 – 76.99
C	65.00 – 71.99
C-	60.00 – 64.99
D	50.00 – 59.99
F	<50

- ***In order to earn an A for the semester, a student must have earned at least a *passing* grade for each assessment (50%).**
- Grades will be updated on D2L. An Excel-based grade calculator is provided on D2L. Grades are rounded to **two decimal places** and assigned based on the grade scale posted above, which will be calculated from your class assessments using the weights indicated. **Absolutely no other factors will be considered in assigning grades.** Please do not send emails requesting that your grade be ‘rounded up’ - they will be ignored. Doing so would essentially be cheating the students who legitimately earned that higher grade. You should do everything you can within your power to minimize the chances of falling just short of a grade level.

- **Lecture Exam Format:** Lecture exams will include multiple choice questions, fill-in questions (mostly taken from the terminology), and short answer/free response questions taken from the I CAN statements found in each lecture's topic mastery sheet (discussed below).
- **The "Boost":** There is no 'curve' in the class based on final grades at the end of the semester. Individual assessment items will be adjusted (boosted) so that the median score is no *lower* than 83%. If it is higher, which is often the case, then no changes will be made. Tests and lab practicals will have more points available than they are 'worth', meaning it is entirely possible to have a score over 100%, and historically a significant number of students achieve that distinction – in fact, over the past ten years, more BIOH 201 students have had a final grade percentage over 100% than all D/F/W grades combined. This also means that students with different strengths will still have the opportunity to do very well in the course.
- **Lab Practical Format:** With few exceptions (which will be discussed by your lab TA) lab practicals will be station-to-station. There will be a few questions per station – mostly identification of anatomical structures – and **they will be timed**. You are free to make notes to yourself on your answer sheet, but you will not be able to return to a station once you have moved on from it. **Spelling counts** – there is a ½ point penalty for every three misspelled terms. A misspelled term is one that is *phonetically correct* but misspelled. If it is not phonetically correct, the response is incorrect.
- **Extra Credit:** Extra credit is available **on your exams!** All lecture tests have more points available than they are 'worth' in the gradebook. What does this mean? Your Unit 1 lecture test is 'worth' 50 points. However, there may be as many as 70 or more points available for you to earn; therefore, you can still earn a very high grade without 'perfect' mastery of the material. Extra credit should mean that you far exceed expectations in learning the material and demonstrate advanced proficient knowledge. I don't believe that extra credit should be awarded for 'busy work'; all your efforts in this class should have the goal of increasing your understanding about human anatomy and physiology. *The one exception to this is the possibility of earning extra credit through Connect Bonus assignments (see below).*
- **Make-up Policy:** If you miss an exam or practical due to illness or MSU-related absence, you will be given the opportunity to make it up with an exam similar in format (MC, fill-in, essays).
 - Lecture Make-up exams will be the **following week on Tuesday starting at 5:00PM** in the lab room.
 - Lab practical make-ups will be the **following week on Monday at 8:00AM** in the lab room.
- **Academic dishonesty** will not be tolerated. Outside notes or any other references are strictly prohibited during exams and practicals. You are required to maintain focus on your own exam and not refer to other students' exams. During exams, **students are subject to proctoring that may include, and not be limited to, direct and/or video observation.**

Any suspected and/or reported instances of academic dishonesty will be thoroughly investigated and referred for disciplinary action to administration. Any confirmed instances will possibly result in the following sanctions:

- A zero grade on that assessment tool/assignment.
- If the incident occurred during an exam or practical, a grade of F for the course, without instructor authorization to withdraw from the class.
- Reporting of the incident, and student referral, to the Dean's office (as well as MSU Athletics, if applicable).

MSU policy regarding academic dishonesty can be found here:

https://www.montana.edu/policy/student_conduct/#academicmisconduct

Course materials available on D2L

Topic Mastery Sheets: Topic mastery sheets will be posted that will correspond to each lecture topic. They will contain the lecture presentation notes, as well as terminology and content proficiency standards (I CAN! statements) relevant to the topic. **These ARE the study guides for the exam!** They are invaluable resources for you; I write the exams with the I CAN statements literally tacked up to the corkboard in my office. They reflect my efforts to be as transparent as I can possibly be about expectations. If you know the terminology and can respond accurately and completely to the I CAN statements without reference to outside resources (the same circumstances as the exam!), you will undoubtedly do very well in the course.

Lab guides: For each lab exercise, there will be a lab guide that you should print out (or have available electronically) and bring to lab with you. They are provided in the content area on D2L in both Word and PDF format - you choose which works best for you; they are identical in every other way. The lab guides are NOT intended to be a replacement for your textbook! Their function is to indicate the material for which you will be held responsible on lab practicals. There is space on the lab guides for you to take notes and/or make sketches. They will not be collected, but there will be some activities that you will be expected to turn in for credit which will be applied to your practicals. Your lab TA will make that clear to you when that occurs. The students that do the best in lab are the ones who attend every lab section and who prepare for lab ahead of time, which maximizes their limited lab time. The lab room is used all day, every day, and as a result there is simply not extra time available outside of your designated lab section.

A&P Crash Course Video Links: Up the road in lovely Missoula, Montana, Hank Green (whose brother John wrote *The Fault in our Stars!*) and his company have produced an exceptional video series called "A&P Crash Course". Each (often hilarious) video is approximately ten minutes long and does a remarkable job of describing the main points of many of the topics of A&P with amazing animation. The first ones won't be relevant until the end of Unit 1 (Histology), but from then on, I highly recommend you check them out – especially if you have little to no background in A&P from previous courses in college or even high school.

Connect Activities

15% of your final grade will come from the online Connect activities (10% lecture, 5% lab) These will be associated with the reading assignments as posted in the syllabus for those lectures/labs. They are accessed in the Connect Assignments module on D2L Content Area, and their due dates are indicated there as well.

- There are both Lecture and Lab Connect Assignment schedules posted in the syllabus, and they are also posted on the D2L Course Calendar. All Connect assignments are due at 11:59pm (midnight) on the date posted. Lecture Connect Assignments will be generally due on Mondays and Wednesdays (except the bonus Connects) and Lab Connect Assignments on Sundays and Tuesdays. It is your responsibility to complete them before the deadline; **there are NO MAKE-UPS allowed under any circumstances.**
- There will be three Lecture Connect assignments (one per unit) that are designated as "Bonus" which means that you may be able to earn back some of the points lost for a couple of missed assignments. If you complete ALL of the assignments *and* some or all of the bonus assignments, you can earn **extra credit** (up to 110%) in the Lecture Connect grade category; this can give you a 1% overall boost in your grade. There are no bonus options for Lab Connect assignments. *Please note the due dates for these in the syllabus.*
- In most circumstances, 24 hour extensions may be granted if you contact your lab TA via email at least **six hours before** the assignment is due. It is your responsibility to check the schedule in the syllabus and complete Connect assignments. If you see an assignment in the syllabus that has a due date less than three days away and it is not open or available, you should email me and it will be

opened. If you procrastinate and start your Connect assignments at the last minute, you jeopardize your ability to complete them. Emails asking for extensions received later than six hours before the deadline on Connect assignments **will not receive a reply**. Note: there are **no extensions** given for Bonus Connect assignments under any circumstances.

Thoughts on how to be successful in A&P:

- **Self-assessment.** Perhaps the most important tip is for you to be brutally honest in your self-assessment of what you know – and more importantly, what you *don't* know. Don't be satisfied with "oh, yeah, I get it!" unless you can take out a blank sheet of paper and accurately and concretely articulate your understanding. That is the goal of the I CAN statements: if you can respond to them thoroughly and accurately – without outside references – you will do very well on the exams.
- **Reflective Reading.** I have found that students often read the book – sometimes over and over – yet still have difficulty articulating what they just read. There is an art to reading for comprehension! It is VERY different than reading for pleasure, if textbooks were 'fun' to read, then we would see them listed on the New York Times best sellers list. They are NOT designed for enjoyment – although the material SHOULD be interesting to you if you are planning a career in the healthcare world! – and it requires that you take a different approach in order to get the maximum benefit for your efforts. One excellent way to assess your understanding is once you are done with a particular section, take out a blank piece of paper (there's a theme here) and see what you can recall from your reading. Can you sketch any of the figures? If there was a list of, say, four things about something, how many of those do you remember, or can you explain? I believe this method is the best way to gain new knowledge using a textbook.
- **Scheduling.** It is imperative that students actively include A&P in their daily (or at least weekly) agendas. The hallmark of a good student is the ability to keep up with material and avoid procrastinating. You are asking too much of yourself if you think you can skim through the book and lectures the weekend before the exam and be successful – there is just too much content.
- **Ask for help!** Although the primary responsibility for learning the material falls on the student, if you feel like you are struggling with the material and need some help, send me an email! I will be more than happy to help you out or meet with you during office hours. It is also recommended that if you feel like you are having some trouble to seek assistance *as early as possible!* The night before the exam is probably not the ideal time for a stressful cram session. Our incredible lab staff is also here for you! This includes both GTAs and Student Assistants who have already been successful in class. Maybe they have some tips that will help you as well. There is also tutoring available for you through SmartyCats. In short, you are not alone! We are dedicated to the success of the students in appreciating both the complexity and the wonders of the human body.

Checklist for success!

1. Read the major question(s) and I CAN statements for the assignment (*prime your brain!*)
2. Read the assignment in the book, cross referencing lecture notes. My advice is to only add notes *sparingly*. You already have a book – there is limited benefit to just mindlessly copying it.
3. Make flash cards for any terminology you don't already know. Flip 'til ya don't miss!
4. Do the Connect assignment. (How did you do? How many questions did you have to guess at?)
5. Attend the lecture focusing your attention on any topics that need further clarification.
6. Take out a blank sheet of paper and attempt to create an answer to the related I CAN statements – *without* using your notes or the book. How did you do? *Self-assess and 'grade your own' response.*
7. Take a break and have another stab at responding to the I CAN statements without using notes. Re-assess for accuracy.
8. Visit office hours and/or schedule a tutoring session for any further help.

- 9. Rock the exam! Do not skip any steps or that may not happen!

BIOH 201 Spring 2025 Schedule Unit 1: Introduction to A&P

Key:

Lecture Meeting

Connect Assignment

Lecture Exam

Kahoot Review

Week	Date	Topic	Reading/Connect
1 1/14-18	Tu 1/14	Welcome to A&P! Course Overview, Tips for success; Intro to A&P	
	W 1/15	1.1: Syllabus Quiz (through Connect)	Syllabus
		1.2: Introduction to Anatomy and Physiology & Inorganic Chemistry	1.1,5-6, 2.1-2
	Th 1/16	Inorganic Chemistry	
2 1/19-25	M 1/20	1.3: Chemistry: Reactions and Intro to Organic Chemistry; Carbohydrates and Lipids	2.3,4a-d
	Tu 1/21	Organic Chemistry – Carbohydrates and Lipids	
	W 1/22	1.4: Organic Chemistry – Proteins and Nucleic Acids	2.4e-g
	Th 1/23	Organic Chemistry – Proteins and Nucleic Acids	
3 1/26-2/1	M 1/27	1.5: Cell Biology - Cellular Structure and the Cell Cycle	3.1,4; 4.3
	Tu 1/28	Cellular Structure	
	W 1/29	1.6: Cell Biology - Membrane transport	3.2-3
	Th 1/30	Membrane Transport	
4 2/2-8	M 2/3	1.7: Histology and Intercellular Communication	5.1,5-6
	Tu 2/4	The Cell Cycle, Intercellular Communication, and Histology	
	W 2/5	Unit 1 Bonus Connect	Bonus 1
	Th 2/6	Unit 1 Review Kahoot	

5 2/9-11	Tu 2/11	Unit 1 Lecture Exam	
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Unit 2: Excitable Tissue!

Week	Date	Topic	Reading/ Connect
5 2/12-15	W 2/12	2.1: Bone Histology and Physiology	7.1-4
	Th 2/13	Bone Histology and Physiology	
6 2/16-22	M 2/17	2.2: Skeletal Muscle – Microanatomy	11.1-3
	Tu 2/18	Skeletal Muscle Histology and Excitable Tissue	
	W 2/19	2.3: Muscle Contraction	11.4-5
	Th 2/20	Whole Muscle Contraction	
7 2/23-3/1	M 2/24	2.4: Skeletal Muscle Energetics	11.6
	Tu 2/25	Muscle Energetics	
	Th 2/27	Kahoot Review - Bone/Muscle	
8 3/2-8	M 3/3	2.5: Neural Histology	12.1-3
	Tu 3/4	Neural Histology and RMP	
	W 3/5	2.6: Neural Electrophysiology	12.4
	Th 3/6	Neural Electrophysiology	
9 3/9-15	M 3/10	2.7: Synaptic Activity	12.5-6
	Tu 3/11	Synaptic Activity and Integration	
	Th 3/13	No Class	
10 3/23-29	M 3/24	Unit 2 Bonus Connect	Bonus 2
	Tu 3/25	Kahoot Review – Neural Tissue	

	Th 3/27	Unit 2 Lecture Exam	
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Unit 3 – Control and Coordination

11 3/30-4/5	M 3/31	3.1: Spinal Cord and Somatic Reflexes	13.1, 3
	Tu 4/1	Spinal Cord and Somatic Reflexes	
	W 4/2	3.2: Brain Anatomy and Physiology	14.1-4, 14.5g & i
	Th 4/3	Brain Anatomy and Physiology	
12 4/6-12	M 4/7	3.3: The Autonomic Nervous System – Autonomic Pathways	15.1-2
	Tu 4/8	The Autonomic Nervous System – Anatomical Pathways	
	W 4/9	3.4: The Autonomic Nervous System – Receptor Physiology	15.3-4
	Th 4/10	The Autonomic Nervous System – Receptor Physiology	
13 4/13-19	Tu 4/15	Kahoot Review: Spinal Cord, Brain, and ANS	
	W 4/16	3.5: Sense Organs: Sensation and the Chemical Senses	16.1-3
	Th 4/17	Sense Organs – Sensation and the Chemical Senses	
14 4/20-26	M 4/21	3.6: Sense Organs – Hearing and Equilibrium	16.4
	Tu 4/22	Sense Organs – Hearing and Equilibrium	
	W 4/23	3.7: Sense Organs – Vision	16.5
	Th 4/24	Sense Organs – Vision	
15 4/27-5/3	M 4/28	3.8: The Endocrine System – Overview and Endocrine Organs	17.1-3
	Tu 4/29	Endocrine System: Overview and Endocrine Organs	
	W 4/30	3.9: Endocrine System: Hormonal Activity	17. 4-5
	Th 5/1	Endocrine System: Hormonal Activity Kahoot Review – Sense Organs and Endocrine System	
Finals Week	Su 5/4	Unit 3 Bonus Connect	Bonus 3

	Tu 5/6	Unit 3 Lecture Exam (2:00-3:50)	
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