

# BIO 234 Human Anatomy and Physiology I – Fall 2021

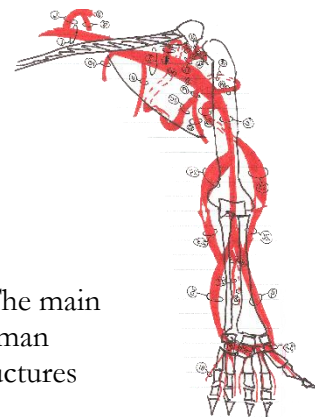
Instructor: Dr. Ian N. Cost

Office: Science 239

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Office Hours: Monday 1-2 and Thursday 9-10 or by appointment



## Course Description:

This course is designed to fill two semesters of learning human anatomy and physiology. The main objective of the first semester of this class is to understand the underlying structures of human anatomy and its physiology. Anatomy and physiology are very closely associated as the structures (anatomy) of a body are influenced by or reflective of their function (physiology).

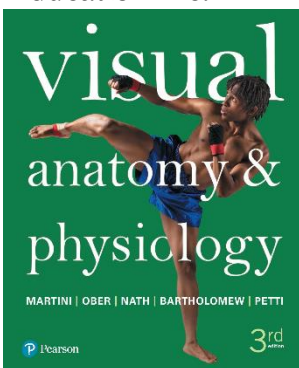
## Student Goals and Class Objectives:

1. To learn, comprehend, and use proper anatomical terminology. This will include learning the roots of words to better understand how anatomical terminology is used in medical and science careers.
2. To gain familiarity with basic human body structure.
3. To understand the details of anatomy from cells to tissues to organ systems to organisms. We will work together to understand how cellular processes inform organ processes. We will form a working knowledge of how body systems work independently and together.
4. To form a knowledge base with which we will be able to discuss injuries, diseases, and other clinical implications of anatomy.

## Texts:

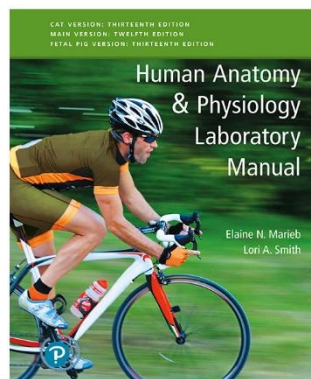
### Required

Martini, F.H., Ober, W.C., Nath, J.L., Bartholomew, E.F., and Petti, K.F. 2018. *Visual Anatomy & Physiology*, 3rd Edition Pearson Education Inc.



### Recommended

Marieb, E.N. and L.A. Smith. 2019. *Human Anatomy & Physiology Laboratory Manual*, 13th edition (cat version). Pearson Education Inc



### Highly Suggested:

ANY Anatomical atlas published since 2005. A list is available on Canvas.

## Attendance:

Class attendance requirements are outlined in the Department of Biology (DoB) Attendance Policy posted [here](#). As outlined in this policy, it is your responsibility to make contact prior to absences for illness and within 24 hours regarding unforeseen emergencies. Unexcused absences from class will count as a **5% reduction from the class participation grade per absence**. Unexcused absences from lab will count as a **2% reduction from the overall lab grade per absence**.

## Class Discussions and Professionalism:

Class discussions will be conducted on various topics throughout the semester. Class discussions will be conducted

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respectfully and professionally. We will use proper terminology to discuss topics. Each student is expected to be respectful of their peers and to hold everyone, including me, responsible for properly addressing students by their chosen names, pronouns, and respective titles and using proper terminology in discussions. If any student wishes to discuss class discussion, content, or any other aspect of class with me they are welcome and encouraged to do so. If you feel uncomfortable speaking with me for any reason, I encourage you to contact the [Office of the Dean of Students](#) with your concerns.

## Exams and Grading:

### Class Exams:

All assessments of knowledge in anatomy are, practically speaking, cumulative. Tests may consist of short answer, multiple choice, and essay questions. Test material will consider only classroom material. These will be further discussed during class time. **100 pts. each**

### Final Exam:

As stated above, anatomy is a cumulative topic. The final exam, therefore, will be cumulative and cover the entire semester's worth of information. All topics of human anatomy will be eligible for the final and questions will include practical applications of anatomy to real-life situations. **100 pts.**

### Class and Lab Participation:

Attending class is important for fully understanding any subject. In addition to attending and participating in typical classes, we will also do some activities, as spacing and time permit to show how anatomy works. Laboratory dissections in human anatomy are one of the main ways of learning anatomy. Dissections will be intense in their rigor and will require the attention and efforts of everyone in the lab group. More will be discussed during the laboratory period. **5 pts. each class/lab**

### Classwork:

Classwork will consist of groupwork as well as solo assignments that students will either work on in class or are expected to produce outside of class. These will include clinical discussion questions, video explanations, and other work as discussed during class. All of this work serves to identify key functions, structures, and anatomical background for the student of human anatomy. **10 pts. each**

### Lab Exams:

The laboratory period will be broken down into thirds. Each section will be assessed equally with the final laboratory period including an additional cumulative clinical series of questions to summarize the semester's worth of laboratory topics. **50 pt. mid-lab assessments, 100 pt. final**

### Grading:

The point breakdown for the course will be as follows:

Class Exams:	- worth 300 points
Final Exam	- worth 100 points
Class and Lab Participation:	- worth 300 points
Classwork:	- worth 100 points
Lab Exams:	- <u>worth 200 points</u>
	<b>Total 1000 points</b>

Notes on Classwork Assignments:

- Videos are due Fridays by 11:59PM. Late video posts will be discounted 10% (1 point) per day.
- Discussions are due Fridays before class (7:59AM). The purpose is so that we can discuss these topics in class briefly. Late discussion posts will not be accepted.
- The laboratory portion of this class counts as the 4<sup>th</sup> hour of quality, but these assignments are integral to your understanding of the structures and functions of anatomy. All assignments done outside of class are short and should require no more time than studying the same material.

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## Grading Scale for Final Grades in This Class:

100	A+	94-99	A	90-94	A-
87-89	B+	84-86	B	80-83	B-
77-79	C+	74-76	C	70-73	C-
67-69	D+	64-66	D	60-63	D-
		<60	F		

## Academic Support Services:

### Academic Learning Center:

The Academic Learning Center (ALC) offers various resources to assist Albright students with their academic success at no charge. The ALC offers course-specific peer tutoring for many general education classes at the 100-200 level. You can schedule to meet with a tutor in person or online by selecting the 'ALC Subject Tutor Schedule' at this link: <https://alb.mywconline.com/> (Links to an external site.). For upperclass students, the ALC offers one-on-one academic coaching on study skills, time management, note-taking, and learning strategies. (The Office of Student Success offers academic coaching for first-year students.) To schedule a meeting with a staff member in the ALC, contact by phone at #610-921-7662 or email: [academiclearningcenter@albright.edu](mailto:academiclearningcenter@albright.edu). Visit the ALC main office in Teel Hall 309A.

### Writing Center:

You are encouraged to work with the Writing Center early and often to help build a strong foundation for writing in this course and in all of your courses. The center's peer tutors and director will work with you at any stage of the writing process, from developing and organizing ideas to revising and editing drafts. Tutors are also available to discuss and practice approaches to managing the college reading workload and reading more effectively. The center is located in the student Campus Center on the lower level near Jake's Place and can be reached at 610-921-7540 (phone) or [writingcenter@albright.edu](mailto:writingcenter@albright.edu). (Note: For Fall 2021, the Writing Center will be in Teel 309-B until the Campus Center construction is completed). For the current schedule or to make an appointment for an in-person or online session, use our appointment system at <https://alb.mywconline.com> (Links to an external site.).

### Gingrich Library:

The Gingrich Library provides resources to assist Albright students with their class projects and research needs. Located in the Center for Computing and Mathematics, the library offers access to its entire catalog of print materials and DVDs as well as an extensive collection of e-books, electronic journals and databases all available from on-campus, in residence halls or off-campus. A small browsing library and college computers are located in the building. Reference librarians are available to answer questions and help students use resources and find appropriate materials. Students are encouraged to contact a librarian at any stage of the research process. Real-time chat services are available through the library's portal at the library's main page <http://library.albright.edu> (Links to an external site.).

### Office of Student Accessibility and Advocacy:

Consistent with the ADA and Section 504 of the Rehabilitation Act, Albright College welcomes students with disabilities into the college's educational programs. If you need impairment-related academic adjustments in this course, please contact Sherry Young, Director of Student Accessibility and Advocacy, by email at [SAA@albright.edu](mailto:SAA@albright.edu) or by phone at 610-921-7503. Our office is located in the Student Center Conference Room. Students should contact the office to schedule an appointment. Students who use accommodations should meet with course instructors privately and in a timely manner to discuss their Academic Accommodation Letter (AAL). Please note that IEPs and 504 plans do not apply to college-level courses.

### Academic Integrity:

The College policy on dishonesty as stated in the section "Academic Dishonesty Policy" in the current Albright College Catalog applies to all aspects of this course, including exams and papers. Academic dishonesty is taking credit for another person's work and attempting to pass it off as your own. It includes: 1) copying from another student during exams and quizzes; 2) allowing someone to copy from you or providing someone with a copy of your work that results in plagiarism; 3) Presenting someone else's ideas as your own without express permission and

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crediting them; 4) Plagiarizing (copying) material from books, articles, and electronic sources for direct use in your work; 5) using cheat sheets, notes, cell phones, etc. to gain outside information during a test or quiz. A student charged with academic dishonesty will be given written or oral notice of the charge, will receive an F on the assignment in question, and the case will be referred to the Provost. At the Instructors' discretion, the student may receive an F for the course. Repeat offenses, in one class or different classes can lead to more severe penalties (e.g. academic dismissal). Please familiarize yourself with this policy.

### **Diversity, Equality, and Inclusion in this Course:**

Much of science is subjective and has been historically based on the ideas and hypotheses of a collection of privileged voices. The readings in this course are based in part on the work done by this small and privileged group of individuals that were, and mostly still are, white men. We will discuss research and work done by scientists that have subsequently, some quite recently, been recognized as leaders in the field of human anatomy, physiology, and functional morphology that do not identify as white men. Should you come across any contributions to this field that you think we ought to incorporate into our coursework or simply wish to discuss the merits of in light of this topic, please feel free to contact me in person, via email, or anonymously (by leaving a note either under my office door or in the building secretary's office on the third floor).

My expectations are that we will be a learning community that appreciates the successes, struggles, and skill sets that we each bring to this class and that we will learn from one another. This course will be a learning environment that is comfortable for students to explore human anatomy and physiology. It is within that goal that this course will support and enrich student learning by using diverse learning styles in classroom discussions, promoting individualized thinking styles, honoring each student's perspectives and experience, and by being respectful of all members of our learning community.

# Class Schedule:

## Class Meeting Schedule

Dashed lines indicate separation of weeks. Class begins on a Friday for this cluster and there are three class meetings per week.

Week	Topic	Classwork & Exams	Reading in Text
1	Course Introduction		Ch. 1
1	Cells and Tissues		Chs. 2 – 4
2/3	Skeleton		Chs. 6 – 10
4/5	Muscle	Exam Week 5	Chs. 6 – 10
6	Central Nervous System		Chs. 11 – 15
7	Peripheral Nervous System		Chs. 11 – 15
8	Autonomic Nervous System	Exam	Chs. 11 – 15
9	Circulatory Systems		Chs. 17 – 19
10	Lymphatic System		Chs. 16
11	Endocrine	Exam	Ch. 20
12	Respiratory System		Ch. 21
13	Digestive System		Ch. 22
14	Urinary System		Chs. 24
15	Reproductive System		Chs. 25

**Final: Schedule to be determined**

### Laboratory Information:

The laboratory exercises in this class will be explorations of anatomy. Class and lab discussions as well as formal assessments in the form of three exams will assess your learning in the laboratory setting. All students should participate to maximize their time in the laboratory and to facilitate their studying and familiarity with anatomical structures.

### Lab Safety:

Students are expected to **follow all lab safety rules at all times**, including arriving in lab with appropriate footwear. Students who are not wearing proper footwear will be sent away to procure acceptable footwear. At times we will be using sharp tools. Safe use of tools will be further explained in labs but includes properly securing tools when not in use and proper handling of tools. **Food, drinks, candy, gum, and other consumables including tobacco and vaporizer products are not permitted in laboratory spaces.** Any food, drink, or other consumables brought into lab must be disposed of. Failure to follow proper safety procedures may lead to dismissal from the lab, at the discretion of the instructor or the Environmental Health and Safety Officer. A handout on safe lab practices will be provided, which must be signed by the student prior to participation in the lab.

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## Laboratory Schedule

This schedule is subject to change due to student interest and laboratory needs. All changes will be announced through Canvas ahead of the class meeting.

Week	Topic	Chapters in Lab Manual	Cat Dissection
1	Intro, Histology, and Skin	Ex. 1, 4, 6, 7	
2	Skeleton	Ex. 9 – 10	
3	<b>First Exam</b>		
4 – 6	Muscle	Ex. 11 – 13	Exercise 1
7 - 8	Nervous System	Ex. 17, 19	Exercise 2
9	<b>Second Exam</b>		
10 – 11	Circulatory System	Ex. 29 – 30, 32	Exercise 3 – 5
12	Respiratory System & Digestive System	Ex. 36 & 38	Exercise 6 & 7
13	Urinary and Reproductive Systems	Ex. 40, 42	Exercise 8 – 9
14	<b>Final Exam</b>		