

Course ID:	Course Title:	Fall 2023	
MED 261	Human Anatomy and Physiology I	Prerequisite: Bio 131	
		Credits: 3	

Class Information		Instructor Information		Important Dates	
Delivery:	In class	Instructor:	Dr. Damilola Adingupu	First Day of Class:	Wed 6 th Sept
Days:	Wed & Fri	Email:	Dami.Adingupu@ambrose.edu	Last Day to Add/Drop:	Sept. 17
Time:	1 – 2:15 pm	Phone:		Last Day to Withdraw:	Nov. 20
Room:	A2210	Office:	A2160	Last Day to Apply for Coursework Extension:	Nov. 23
Lab/Tutorial:	Fri 8-10:45 am in A2151	Office Hours:	By appointment	Last Day of Class:	Dec 11
Final Exam:	Wed 13 th Dec 1-4 pm, A2210				

Important Dates and Information

For a list of all important dates and information regarding participating in classes at Ambrose University, please refer to the Academic Calendar at https://ambrose.edu/academic-calendar.

Course Description

A systems approach to human anatomy and physiology. Basic biochemistry and cell biology as well as integumentary, skeletal muscular, nervous, and endocrine systems will be covered. Structure and function will be emphasized in both lecture and laboratory components. This course consists of 2.5 hours of lectures per week, plus a 3-hour lab.

Expected Learning Outcomes

- 1. Understand the structure and function of the following human body systems: integumentary, skeletal, muscular, nervous, and endocrine.
- 2. Describe the basic biochemical and cellular mechanisms underlying physiological processes.
- 3. Apply critical thinking to problem-solve issues related to health maintenance and disturbances in homeostasis.
- 4. Perform basic physiological experiments and anatomical dissections.

- 5. Develop a curiosity and wonder of the complexity and beauty of the human body and the enthusiasm to continue learning and questioning.
- 6. A strengthened research skill, as well as the ability to communicate scientific information effectively using oral presentations and written reports.

Required Textbook

Human Anatomy & Physiology (11th edition) by Elaine N. Marieb & Katja Hoehn, published by Pearson.

Required Digital Learning Resources:

- Sign up for **TopHat.** This is an in-class response system, you were sent an invitation to register.
 - □ There will be in-lecture quizzes administered through TopHat that is worth 10% of your overall grade.

	Lecture/ Lab Schedule	Textbook Chapter			
Wed 6 th Sept	Week 1: Introduction to Anatomy and physiology	1 , 2 - 20			
Fri 8 th Sept (AM)	Lab 1: Introduction to Lab, techniques and anatomical position				
Fri 8 th Sept	Week 1: Basic Biochemistry	2, 38 - 56			
Wed 13 th Sept	Week 2: Basic Cell Biology Part 1	3 , 61 - 79			
Fri 15 th Sept (AM)	Lab 2: The cell and transportation across cell membrane.				
	(Assignment Due Friday 22 nd Sept 2023 at 1159pm)				
Fri 15 th Sept	Week 2: Basic Cell Biology Part 2	3 , 79 - 96			
Wed 20 th Sept	Week 3: Tissue	4 , 116 - 144			
Fri 22 nd Sept (AM)	Lab 3: Classification of tissue and Integumentary System				
Fri 22 nd Sept	Week 3: The Integumentary System	5 , 150 - 169			
Wed 27 th Sept	Week 4: Bones and Skeletal tissue	6 , 174 - 190			
Fri 29 th Sept (AM)	Lab 4: Anatomy Lab, Overview of the Skeleton				
Fri 29 th Sept	Week 4: The skeleton: Axial Skeleton	7 , 199 - 227			
Wed 4 th Oct	Midterm 1				
Fri 6 th Oct (AM)	Lab 5: Axial and Appendicular skeleton				
Fri 6 th Oct	Week 5: The skeleton: Appendicular Skeleton	7 , 227 - 245			
Wed 11 th Oct	Week 6: Joints	8 , 251 - 272			
Fri 13 th Oct (AM)	Lab 6: Joints and Muscle Grip Strength Experiment IWorX				
• •	(Assignment Due Friday 27 th Oct at 1159pm)				
Fri 13 th Oct	Week 6: Muscle and Muscle Tissue 1	9 , 280-283			
Wed 18 th Oct	Week 7: Muscle and Muscle Tissue 2	9 , 290-316			
Fri 20 th Oct (AM)	No lab: Oral Presentation				
Fri 20 th Oct	Week 7: The Muscular system	10 , 324-329			
Wed 25 th Oct	Academic Advising Week, No class				
Fri 27 th Oct	Academic Advising Week, No class				
Wed 1 st Nov	Week 8: Fundamentals of the nervous system	11 , 391-427			
Fri 3 rd Nov (AM)	Lab 7: Nervous system lab Part 1				
Fri 3 rd Nov	Week 8: Membrane and Action potential	11 , 391-427			
Wed 8 th Nov	Reading week - no regular class				
Fri 10 th Nov	Reading week - no regular class				
Wed 15 th Nov	Week 9: Central Nervous system: The Brain	12 , 435-469			
Fri 17 th Nov (AM)	Midterm 2				
Fri 17 th Nov	Week 9: Central Nervous system: The Spinal Cord	12 , 470-481			
Wed 22 nd Nov	Week 10: Peripheral Nervous system Part 1	13 , 490-525			
Fri 24 th Nov (AM)	Lab 8: Nervous system lab Part 2 (assignment from Part 1 and 2				
	due Wednesday 6 th Dec at 1159pm)				
Fri 24 th Nov	Week 10: Peripheral Nervous system Part 2	14 , 532-548			
Wed 29 th Nov	Week 11: Autonomic nervous system	15 , 554-580			
Fri 1 st Dec (AM)	Lab 9: General senses and Special senses				
Fri 1 st Dec	Week 11: Special Senses Part 1: Vision	15 , 580			
Wed 6 th Dec	Week 12: Special Senses Part 2: Smell, Taste	15 ,596			
Friday 8 th Dec (AM)	Lab 10: Learning Review				
Friday 8 th Dec	Week 12: Special Senses Part 3: Hearing and Balance	16 , 602-617			
Last day of class is Monday 11 th Dec					

Requirements

Assessment and Evaluation:

- Midterm 1 20%, Wed 4th October
- Midterm 2 20%, Friday 17th November
- Final Exam 30%, Wed 13th Dec 1-4 pm, A2210
- 2-3 lab-related assignment at 3-5% each: First assignment online/ in-person submission due Friday 22nd Sept 2023 at 1159pm (worth 3%), Second assignment online/ in-person submission due Friday 27th Oct at 1159pm (worth 3%) and Third assignment online/ in-person submission due Wednesday 6th Dec at 1159pm (worth 4%)-Total 10%
- Oral presentation (In class 20th October) 5%
- TopHat Quizzes and participation in discussion 15%
- Students are encouraged to read the corresponding chapter prior to attending lectures
- Students are encouraged to generate their own notes according to their learning styles
- Lecture materials, except fill-in slides, and assignments will be posted on Moodle
- Final exam is comprehensive (i.e. cumulative)

Attendance:

Attendance at all lectures is strongly recommended, this will help ensure success on lab assignments, quizzes, and exams. Failure to attend classes will mean loss of up to 15% of overall grade. Attendance is mandatory at all labs and tutorials. Lab assignments will not be accepted unless the lab has been attended or exceptions have been made with the instructor. An absence for an exam or quiz requires that a note be provided from a medical authority before the student may complete the test. If absences for an extended period occur the instructor should be notified.

Grade Summary:

The available letters for course grades are as follows:

Percent (%) to Letter Grade Conversion	Grade	Grade Point	Description
95.00% - 100%	A+	4.0	
87.00% - 94.99%	Α	4.0	Excellent
80.00% - 86.99%	A-	3.7	
77.00% - 79.99%	B+	3.3	
73.00% - 76.99%	В	3.0	Good
70.00% - 72.99%	B-	2.7	
67.00% - 69.99%	C+	2.3	
63.00% - 66.99%	С	2.0	Satisfactory
60.00% - 62.99%	C-	1.7	
55.00% - 59.99%	D+	1.3	
50.00% - 54.99%	D	1.0	Minimal Pass
00.00% - 49.99%	F	0	Fail

Because of the nature of the Alpha 4.00 system, there can be no uniform University-wide conversion scale. The relationship between raw scores (e.g. percentages) and the resultant letter grade will depend on the nature of the course and the instructor's assessment of the level of each class, compared to similar classes taught previously.

Please note that final grades will be available on student registration system. Printed grade sheets are not mailed out.

Late Work

In general, late work is accepted but penalized by a loss of 0.5% per day. If you have a spectacularly good excuse for being late, let me know as soon as possible and I'll consider waiving the penalty.

Academic Integrity - Cheating and Plagiarism

For exams, working with other students is NOT allowed. For all other assignments, working together IS allowed (unless stated otherwise). If you use any sources other than your instructor, classmate, textbook, or lab handout, please cite them.

It is your responsibility to ensure that all work you submit is original and that credit is given to ideas that are not your own. See below for Ambrose's statement defining plagiarism and outlining its consequences. While you will be working with at least one partner during labs, it is expected that you each hand in your own, individual assignment that is your own original work.

Examples of plagiarism include, but are not limited, to:

- 1. Copying an assignment from someone else and submitting it as your own work.
- 2. Working with a friend and writing down identical answers, whether you understand the content or not, and submitting the assignments separately.
- 3. Quoting directly from a source without supplying quotation marks or a citation.
- 4. Quoting directly from a source without supplying quotation marks, even if it is referenced.
- 5. Submitting an assignment in which >30% of the content is properly quoted; that is, at least 70% of the words in an assignment need to be your own. A general rule of thumb: for every line quoted, there should be three lines of your own material explaining that quote.
- 6. Submitting the same or similar assignment for more than one class, or more than one iteration of the same class.

Penalties for plagiarism

For a first offense in any one of my classes, a zero on the assignment with no chance of rewriting it, and a note in your academic file.

For a second offense in any one of my classes, a zero in the class, and recommendation for a note on your transcript.

For a third offense in any one of my classes, a zero in the class and a recommendation for expulsion from the university.

Note that Ambrose has appeals process in place if you feel that allegations of plagiarism are unfounded; these are for final marks only, and not for individual assignments.

Note that my record of a student's past plagiarism does not reset with each semester.

HOW TO POSITION YOURSELF FOR ACADEMIC SUCCESS

- 1. Come to lecture, labs and tutorials People learn in many ways, some are auditory learners, some visual learners, some tactile, but most of us use a combination of all of these. I will try use a combination of these in class, therefore attending increases your opportunities for learning.
- 2. Note Taking Reading over your notes within 24 hours after class and supplementing with more detail from the text will greatly enhance your retention of the material. I would suggest taking lecture notes in one color and using contrasting color for 'added' material.
- 3. Keep up with the reading material Lectures will not always cover all the material, so your text is an important resource. Focus on the summary charts, bold or highlighted items, and end of chapter reviews. Supplement your lecture notes with points from your readings. The text provides a wealth of visual illustrations and additional web-based resources. Utilize all of these resources to help you learn. There is sometimes a tendency to go into a studying slump after mid-semester.

Just like in a race, do not let up until the finish line!

- 4. Do your laboratory report –You can expect to see question like your lab report to appear on quizzes and exams.
- 5. Form study groups Study groups can help you learn while making new friends. Often students can learn as much from their peers as from the professor. When you can explain a concept to someone else then you know that you really know it.
- 6. Ask for help Students ARE NOT an interruption from my work, but the reason for it! Visit me during office hours, send an email or make an appointment. Sometimes that extra bit of explanation makes all the difference.

Ambrose University Important Information:

Ambrose University Important Policies & Procedures:

Registration

Registration is the process of selecting and enrolling in classes for upcoming semesters. Only students who are registered will be permitted to attend class and receive a grade for the course. You are responsible for ensuring that the courses you take are appropriate for your program, that they do not have any scheduling conflicts, that they have the necessary prerequisites and that they meet all degree requirements.

Withdrawal From A Course

Prior to the Add/Drop deadline: through the student registration system whereby course(s) will be removed with no academic or financial penalty. After the Add/Drop deadline and until the Withdrawal deadline: through submission of the 'Withdrawal from Course' form whereby course(s) will remain on the permanent academic record/transcript with the symbol 'W'. (See ambrose.edu/registrar/request-forms.) Students who withdraw from more than 30 credits attempted at Ambrose University will be required to withdraw from their program. Students considering withdrawing from courses are encouraged to discuss with their Faculty Advisor and/or the Office of the Registrar questions relating to their withdrawal decision specifically relating to financial assistance, study permit requirements, prerequisites for subsequent courses, readmission, and/or graduation timeline. Students who do not formally withdraw from a course are still considered registered in the course, even if they are no longer attending classes. In this case, students will be assigned a grade based on coursework completed as per the course syllabus and are responsible to pay the tuition and fees assessed for the course. Under extenuating circumstances, students may request from the Office of the Registrar a course(s) withdrawal after the Withdrawal deadline and until the last day of classes. Extenuating circumstances typically consider situations such as medical emergencies, compassionate grounds, or unforeseen conditions/situations beyond the students' control that arise after the start of the semester and are considered on a case-by-case basis. Supporting documentation from a physician or Registered Health Professional must accompany this request.

Coursework Extensions

Should a request for a time extension on coursework exceed the end of the term, a *Coursework Extension Application* must be completed and submitted to the Office of the Registrar. The extension (if granted) will be recorded on the student record. Extensions are granted at the discretion of the instructor and registrar. If granted, time extensions do not excuse you from a final examination where one has been scheduled for the course. More conditions apply.

Exam Scheduling

Students who find a conflict in their exam schedule must submit a *Revised Final Exam Time Application* to the Office of the Registrar by the deadline noted in the Academic Calendar. Requests will be considered for the following reasons only: 1) the scheduled final examination slot conflicts with another exam; or 2) the scheduled final examination slot results in three consecutive examination

periods. Travel is not considered a valid excuse for re-scheduling or missing a final exam.

Communication

Your Ambrose email account is the University's primary and official mode of communication with you. Information delivered to your Ambrose email is considered official notification. Ambrose University is not responsible for your failure to receive important information delivered to your Ambrose email.

Lecture Recording

The recording of lectures or any other classroom academic activity, other than an audio recording as an accommodation, is prohibited except at the discretion of the instructor. Any use other than that agreed upon with the instructor constitutes academic misconduct and may result in suspension or expulsion. Permission to allow a lecture recording is not a transfer of any copyrights, so such recordings may be used only for individual or group study with other students enrolled in the same class and may not be reproduced, transferred, distributed or displayed in any public or commercial manner. Student must destroy recordings in any, and all formats at the end of the semester in which they are enrolled in the class. All students recording lectures, must sign the Permission Form to audio record lectures which is available through the Office of the Registrar.

Standards of Behaviour in the Classroom Setting

Learning is an active and interactive process, a joint venture between student and instructor and between student and student. Some topics covered within a class may lead to strong reactions and opinions. It is important that Students understand that they are entitled to hold contradictory beliefs and that they should be encouraged to engage with these topics in a critical manner. Committing to this type of "active learning" significantly increases the learning experience for both teacher and student, and reflects the Christian imperative to pursue truth, which lies at the heart of the Ambrose educational experience. However, active discussion of controversial topics will be undertaken with respect and empathy, which are the foundations of civil discourse in the Classroom Setting. Primary responsibility for managing the classroom rests with the instructor. The instructor may direct a student to leave the class if the student engages in any behaviour that disrupts the classroom setting. If necessary, Ambrose security will be contacted to escort the student from class.

Academic Integrity

We are committed to fostering personal integrity and will not overlook breaches of integrity such as plagiarism and cheating. Academic dishonesty is taken seriously at Ambrose University as it undermines our academic standards and affects the integrity of each member of our learning community. Any attempt to obtain credit for academic work through fraudulent, deceptive, or dishonest means is academic dishonesty. Plagiarism involves presenting someone else's ideas, words, or work as one's own. Plagiarism is fraud and theft, but plagiarism can also occur by accident when a student fails or forgets

to acknowledge to another person's ideas or words. Plagiarism and cheating can result in a failing grade for an assignment, for the course, or immediate dismissal from the university. Students are expected to be familiar with the policies in the current Academic Calendar that deal with plagiarism, cheating, and the penalties and procedures for dealing with these matters. All cases of academic dishonesty are reported to the Academic Dean and become part of the student's permanent record.

Academic Policies

It is the responsibility of all students to become familiar with and adhere to academic policies as stated in the Academic Calendar. The academic calendar can be found at https://ambrose.edu/academics/academic-calendar

Privacy

Personal information (information about an individual that may be used to identify that individual) may be required as part of taking this class. Any information collected will only be used and disclosed for the purpose for which the collection was intended. For further information contact the Privacy Compliance Officer at privacy@ambrose.edu.

Academic Success and Supports

Accessibility Services

Academic accommodation is provided to Ambrose students with disabilities in accordance with the Alberta Human Rights Act and the Canadian Charter of Rights and Freedoms. Provision of academic accommodation does not lower the academic standards of the university nor remove the need for evaluation and the need to meet essential learning outcomes. Reasonable accommodations are tailored to the individual student, are flexible, and are determined by considering the barriers within the unique environment of a postsecondary institution. It can take time to organize academic accommodations and funding for disability-related services. Students with a disability who wish to have an academic accommodation are encouraged to contact Accessibility Services as early as possible to ensure appropriate planning for any needs that may include accommodations. Staff can then meet with students to determine areas to facilitate success, and if accommodations are required, ensure those accommodations are put in place by working with faculty.

Ambrose Writing Services

Ambrose Writing services provides academic support in the four foundational literacy skills—listening, speaking, reading, and writing. It also assists students with critical thinking and the research process. Throughout the academic year, students can meet with a writing tutor for personalized support, or they can attend a variety of workshops offered by Academic Success. These services are free to students enrolled at Ambrose University. Academic Success serves all students in all disciplines and at all levels, from history to biology and from theatre to theology. To learn more, please visit https://ambrose.edu/sas/writing-services

Ambrose Tutoring Services provides support in specific disciplinary knowledge, especially in high-demand areas such as chemistry, philosophy, math and statistics, and religious studies. These tutors also coach students in general study skills, including listening and note-taking. During the academic year, Ambrose Tutoring Services offers drop-in tutoring for courses with high demand; for other courses, students can book a one-to-one appointment with a tutor in their discipline. These services are free to students enrolled at Ambrose University. To learn more, please visit https://ambrose.edu/tutoring.

Mental Health Support

All of us need a support system. We encourage students to build mental health supports and to reach out when help is needed.

On Campus:

- Counselling Services: ambrose.edu/counselling
- For immediate crisis support, there are staff on campus who are trained in Suicide Intervention Skills and can help you access mental health support. See https://ambrose.edu/student-life/crisissupport for a list of staff members.
- For additional wellness resources go to the Ambrose wellness page: https://ambrose.edu/wellness

Off Campus:

- Distress Centre 403-266-4357
- Alberta Mental Health Helpline 1-877-303-2642 (Toll free)
- Sheldon Chumir Health Care Centre 403-955-6200
- Emergency 911

Sexual Violence Support

We are committed to supporting students who have experienced gender based sexual violence in the past or while at Ambrose. Many of the staff, faculty, and student leaders have received Sexual Violence Response to Disclosure training. We will support you and help you find the resources you need and you can access information about reporting. Information about the Sexual Violence policy and on and off campus supports can be found on our website— ambrose.edu/sexual-violence-response-and-awareness.

Off Campus:

- Alberta's Oneline for Sexual Violence 1-866-403-8000 call or text
- Clinic: Sheldon Chumir Health Centre 403-955-6200
- Calgary Communities Against Sexual Abuse 403-237-5888
- Chat: www.calgarycasa.com

Note: Students are strongly advised to retain this syllabus for their records.