



BIOL 2401.101CL
Anatomy and Physiology 1
Fall 2024
Monday and Wednesday 8-10:50 am

Instructor Information: Dr. Leslie Mayer, Lmayer1@com.edu

Student hours and location: Monday and Wednesday 7:45 - 8:00 AM, Steam Bldg. Rm. 333

Required Textbook and Materials:

- Class Textbook: You automatically purchased the eBook at the time of registration. You will gain access to the eBook in Brightspace when class begins.
Textbook Information: E.N. & Hoehn, K., 2019. Human Anatomy and Physiology, 11th edition, Boston, MA; Pearson Education, Inc. bundled with MODIFIED Mastering A&P on-line component. ISBN-13: 9780134763415.
- Lab Manual: (Purchase in the COM bookstore) Amerman, E., 2022. Exploring Anatomy & Physiology in the Laboratory, 4th edition. Englewood, Colorado, Morton Publishing Company (customized for College of the Mainland) ISBN-13: 9781640436206
BRING YOUR LABORATORY MANUAL DAILY

Course Description:

Anatomy and Physiology I is the first part of a two-course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular, nervous and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include integumentary, skeletal, muscular, nervous, and special senses.

Course requirements:

Lecture Exams & Final Exam:

You will have four lecture exams and a comprehensive final exam over the course material. Exams will be taken in class and timed. Each exam may consist of multiple-choice, fill-in-the-blank, matching, true-false, short-answer, essay and/or identification. Tested information may come from the textbook, class lecture material, laboratory material, and/or any handouts. Each test must be returned at the end of the class period. Any test that is not returned will have the grade on the exam changed to a "zero".

★ Notice: If you make an A on every lecture exam, you may elect to skip the final exam. In that event, your final exam score will be an average of your four lecture exams scores, with an adjustment for proper point conversion. If you make an A on every lecture exam and decide to take the final exam also, whatever score you make on the final exam will stand.

Chapter Quizzes:

You will have 12 Chapter Quizzes in this course. They are taken in class and typically taken on Wednesdays. Refer to the schedule that follows.

Professionalism:

Your participation in this class in a professional manner is required. Examples of behaviors which detract from this component are: emails sent to the professor written as if sending a text message rather than a proper email, assignments turned in late or with difficulty due to waiting till last minute, arriving late to class, leaving early, etc. For a comprehensive listing, refer to the tab in the left-hand panel of Brightspace called "Syllabus & Schedule" and select the tab labeled "Professionalism".

Participation:

You are expected to participate in all classroom activities. You may not always know the right answers, but you should make effort. Active participation increases your learning and critical thinking skills.

Your quality of participation will be reflected in your participation score. Further details regarding how this portion is assessed will be outlined on the first day of class.

Online Lab Quizzes:

You will have 12 Lab Quizzes in this course. Lab Quizzes cover material specified in each week's online agenda to be to read and reviewed. Lab Quizzes are taken online. Refer to the schedule that follows.

Lab Practical:

Two Lab Practicals are scheduled. A Lab Practical will cover material presented in lab during a given section and is taken in class. Please refer to the schedule that follow.

Any Lab Practical that is not returned at the end of class will receive a grade of "zero".

Lab Competencies:

You will have 12 Lab Competencies in this course. Lab Competencies cover assigned lab manual readings and in-class lab activities. Lab Competencies are taken in class. Refer to the schedule that follows.

Anything turned-in without your name / student ID# is susceptible to not being graded and resulting in a grade of zero. ***Double check all work before submitting***

Determination of Course Grade/Detailed Grading Formula:

Course Assessment	Total Points	Percentage of Course
LECTURE PORTION	610	61.0%
Lecture Exam (x4)	320 (80 points ea.)	32.0 %
Final Exam	100	10.0 %
Chapter Quizzes (12)	120 (10 points ea.)	12.0 %
Participation	50	5.0 %
Professionalism	20	2.0 %
LABORATORY PORTION	390	39.0%
Online Lab Quiz (12)	120 (10 points ea.)	12.0%
Lab Practicals (2)	180 (90 points ea.)	18.0%
Lab Competencies (12)	90 (7.5 points ea.)	9.0%
TOTAL POINTS	1000	100%

The grade for this course consists of both a lecture and laboratory component. Students must earn a 70% or better in the laboratory component to successfully pass the course. Earning less than 70% in the laboratory component will result in an F for the course regardless of the lecture grade. Passing the laboratory component and failing the lecture component will not guarantee a passing grade for the course. Deviations from this policy will be at the sole discretion of the instructor.

Grading Scale:

A	A Sum of the points earned for course assessments that equals between 900 and 1000 points
B	A Sum of the points earned for course assessments that equals between 800 and 899 points
C	A Sum of the points earned for course assessments that equals between 700 and 799 points
D	A Sum of the points earned for course assessments that equals between 600 and 699 points
F	A Sum of the points earned for course assessments that equals below 600 points.
I	A incomplete may be assigned at the discretion of the instructor in accordance with the policy.
W	A withdrawal may be assigned in accordance with college policy.

Make-Up Policy:

Lecture Exams & Final Exam: Exams must be taken on the scheduled date. If you miss the exam on the scheduled date you should expect to receive a grade of zero (0). Missed exams generally cannot be made up unless there is a documented illness or death in the family. Any variations are at the instructor's discretion. You will need to contact Dr. Mayer via COM email and receive confirmation to be considered for make-up exam for the above reasons. Make-up exams must be taken within one week of the missed exam, and will be a different format exam from what was administered in class.

Lab Practicals: Lab practicals are listed in the schedule found in this syllabus. If you miss the Lab Practical you should expect to receive a grade of zero (0). Any variations are at the professor's discretion.

Chapter Quizzes: At the end of the semester, the lowest Chapter Quiz grade is dropped and the highest will count double. No make-up Chapter Quizzes are available. This is the case even if you desire to take a make-up quiz due to an anticipated or unanticipated absence.

Online Lab Quizzes: Lab Quizzes are available for one week online. No make-up Lab Quizzes are available.

Lab Competencies: At the end of the semester, the lowest Lab Competency is dropped and the highest will count double. No make-up Lab Competencies are available. This is the case even if you desire to take a make-up Lab Competency due to an anticipated or unanticipated absence.

Attendance Policy:

Your attendance is critical to the success you will have in this course.

- If you reach (3) or more marks of absence you may be dropped from the course at any time.
 - The only exception is for a documented allowable excuse approved by the instructor, requested within 24 hours of the missed date. Documentation will be required and verified.
- **Tardiness:**
 - Class begins at **8 AM**.
 - **I will begin** instruction, an assessment, an exam, a quiz, or any activity at **8 AM**.
 - If you are not present in class **by 8:20 AM** you **will** be marked **late** and Professionalism points adjusted accordingly.
 - Tardiness may result in an **absence** if not present when attendance is taken and may prevent you from participation in lab experiments, examinations, or lead to dismissal from class.
 - **If you are late and a quiz, exam, or activity has been administered, time will not be extended.** The assignment will be due at the end of the allotted time as it is for everyone else. Do your best not to eat into your own time.

Communicating with your instructor: ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means. (Faculty may add additional statement requiring monitoring and communication expectations via Blackboard or other LMS)

Student Learner Outcome (SLO)	Maps to Core Objective(s)	Assessed via this Assignment
1. Use anatomical terminology to identify and describe locations of major organs of each system covered.		Diagram questions on Exam 1, 2, 3, and 4
2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.		Exam 1 Essay Questions
3. Describe the interdependency and interactions of the systems.		Group Case Study Activity
4. Explain contributions of organs and systems to the maintenance of homeostasis.	CT	Group Case Study Activity
5. Identify causes and effects of homeostatic imbalances.		Group Case Study Activity
6. Describe modern technology and tools used to study anatomy and physiology.		Muscle Fatigue Lab

7. Apply appropriate safety and ethical standards.		Lab Safety Quiz
8. Locate and identify anatomical structures.		Lab Practical 2
9. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations.		Lab Practical 3
10. Work collaboratively to perform experiments.	TW	Disarticulated Skeleton Race Assignment
11. Demonstrate the steps involved in the scientific method.		Bloody Cytology Exercise 4-3
12. Communicate results of scientific investigations, analyze data and formulate conclusions.	CS	Forensic Lab
13. Use critical thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations, and predictions.	EQS	Forensic Lab

Academic Dishonesty:

- Disciplinary actions will be taken for students who exhibit disorderly conduct, cheat on exams, submit plagiarized work (see below), or are involved in collusion (helping others cheat or plagiarize) as defined in the Student Handbook under the heading, "Discipline and Penalties." The maximum penalty imposed for violations will be an F in the course. The student will also be referred to the Associate Vice President of Student Success and Conduct for further disciplinary action. Please read through the "Standards of Student Conduct" in the Student Handbook for a more complete discussion of these issues and your rights and responsibilities.
- Plagiarism is a serious offense. Plagiarism includes paraphrasing someone else's words without giving proper citation, copying directly from a website and pasting it into your paper, using someone else's words without quotation marks. Any assignment containing any plagiarized material will receive a **grade of zero** and the student will be referred to the Office of Student Conduct for the appropriate discipline action. In addition, I am providing you with an internet link to a video on Plagiarism: <http://en.writecheck.com/ways-to-avoid-plagiarism/>
- Students are expected to be familiar with and abide by the Student Code of Conduct: <http://www.com.edu/student-services/student-handbook.php>. Any violations of the Code of Conduct will result in a referral to the Dean of Students and may result in dismissal from this class.
- Video recording of the course is prohibited and any evidence of such will be considered for dismissal from the class.

Student Concerns: If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact [Sheena Abernathy, Dept. of Science and Engineering Chair at 409.933.8330 or sabernathy@com.edu](mailto:sabernathy@com.edu).

Course outline: (Tentative Schedule)

WEEK #	SUBJECT	LABORATORY	Scheduled Assessments		
			Monday In-Class	Wednesday In-Class	Friday Online by 5 PM
1. Aug. 18 - Aug. 24	<u>Ch. 1</u> Intro. to Anatomy and Physiology	Lab Safety Ex. 1-3 and 1-4 Terms Ex. 1-5 and 1-6 Cavities, Membranes, Planes		Quiz Ch. 1 Lab Competency A	Lab Quiz 1
2. Aug. 25 - Aug. 31	<u>Ch. 2</u> Chemistry	Ex. 2-1 pH Lab		Quiz Ch. 2 Lab Competency B	Lab Quiz 2
3. Sept. 1 - Sept. 7	<u>Ch. 3</u> The Cell	Ex. 4-1 Organelles & Cell Structures Ex. 4-4 Mitosis & Cell Cycle	Labor Day Holiday	X	Lab Quiz 3
4. Sept. 8 - Sept. 14	<u>Ch. 4</u> Tissues	Ex. 5-1 thru 5-4 Tissues	Exam #1 (Ch. 1-3)	Quiz Ch. 4 Lab Competency C	
5. Sept. 15 - Sept. 21	<u>Ch. 5</u> Integumentary System	Ex. 6-1 Skin Anatomy & Accessory Structures Ex. 6-2 Histology of Integument Ex. 6-4 Fingerprinting		Quiz Ch. 5 Lab Competency D	
6. Sept. 22 - Sept. 28	<u>Ch. 6</u> Bones & Skeletal Tissue	Ex. 7-1 Microscopic Anatomy of Bone Ex. 7-4 Anatomy of Long Bones Ex. 8-1 thru 8-3 Anatomy of the Skelton	Exam #2 (Ch. 4 and 5)		
7. Sept. 29 - Oct. 5	<u>Ch. 7</u> The Skeleton	Forensic Lab Handout		Quiz Ch. 6	

				Lab Competency E	
8. Oct. 6 - Oct. 12	<u>Ch. 8</u> The Joints	Ex. 9-1 Classification of Joints Ex. 9-2 Synovial Joints Ex. 9-3 Knee Joint	Lab Practical #1 (Lab Material WEEK 1-7)	Quiz Ch. 8 Lab Competency F	
9. Oct. 13 - Oct. 19	<u>Ch. 9 & 10</u> Muscles and The Muscular System	Ex. 10-1 Skeletal Muscle Anatomy Ex. 11-1 Skeletal Muscle anatomy & Microanatomy Ex. 11-3 Smooth and Cardiac Muscle Tissues	Exam #3 (Ch. 6 and 8)	Quiz Ch. 9 and 10 Lab Competency G	
10. Oct. 20 - Oct. 26	<u>Ch. 11</u> Nervous Tissue	Vernier Muscle Fatigue Handout		Quiz Ch. 11 Lab Competency H	
11. Oct. 27 - Nov. 2	<u>Ch. 12</u> Central Nervous System	Ex. 12-1 Neurons & Neuroglia Ex. 12-2 Nervous Tissue Physiology		Quiz Ch. 12 Lab Competency I	
12. Nov. 3 - Nov. 9	<u>Ch. 13</u> Peripheral Nervous System	Ex. 13-1 Anatomy of the Brain Ex. 13-2 Anatomy of the Spinal Cord	Exam #4 (Ch. 9-12)	Quiz Ch. 13 Lab Competency J	
13. Nov. 10 - Nov. 16	<u>Ch. 14</u> Autonomic Nervous System	Ex. 14-2 Cranial Nerve Structure and Function Ex. 14-3 Spinal Nerves and Reflex Ex. 14-4 The Autonomic Nervous System		Quiz Ch. 14 Lab Competency K	
14. Nov. 17 - Nov. 23	<u>Ch. 15</u> Eyes and Ears	Ex. 15-1 Anatomy of Eye and Vision Ex. 15-2 Anatomy of an Ear, Hearing and Equilibrium Ex. 15-4 Physiology of the General Senses		Quiz Ch. 15 Lab Competency L	

15. Nov. 24 – Nov. 30	Open Lab		X	Lab Practical #2 (Lab Material Week 8-14)	
16. Dec. 1 - Dec. 7			Comprehensive Final Exam	X	

Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook https://www.com.edu/student-services/docs/Student_Handbook_2024-2025_v2.pdf. An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor’s professional judgment of the quality of the student’s work and performance is also not an admissible basis for a grade appeal.

Academic Success & Support Services: College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement: ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact:
 Kimberly Lachney, Student Accessibility Services Coordinator
 Phone: 409-933-8919 Email: AccessibilityServices@com.edu
 Location: COM Doyle Family Administration Building, Student Success Center

Textbook Purchasing Statement: A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Withdrawal Policy: Students may withdraw from this course for any reason prior to the last eligible day for a “W” grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1st 8-week session is October 2. The last date to withdraw from the 16-week session is November 15. The last date to withdraw for the 2nd 8-week session is November 26.

FN Grading: The FN grade is issued in cases of failure due to a lack of attendance, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit

assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN grade.

Early Alert Program: The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

Resources to Help with Stress:

If you are experiencing stress or anxiety about your daily living needs including food, housing or just feel you could benefit from free resources to help you through a difficult time, please click here <https://www.com.edu/community-resource-center/>. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork, by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at deanofstudents@com.edu or communityresources@com.edu.