



BIOL 2401.221HY
Anatomy & Physiology I
Spring 2024
Hybrid Lab Monday 6:00PM-8:50PM
Steam Bldg. #22 Room 333

Instructor Information: Professor Smith, email: ssmith10@com.edu, phone: 409-933-8436

Student hours and location: On-campus in STE325-22: M 2:00-6:00pm; Virtual hours by appointment <https://calendly.com/ssmith10/30min>: T 5:00-6:00pm, TH 5:00-6:00pm & F 9:00-11:00am

Required Textbook/Materials:

- Marieb, E.N. & Hoehn, K., 2019. Human Anatomy and Physiology, 11th ed. Boston, MA; Pearson Education, Inc. (eBook via VitalSource already loaded in Brightspace = NO PURCHASE REQUIRED)
- Amerman, E., 2017. Exploring Anatomy & Physiology in the Laboratory, 4th edition. Englewood, Colorado, Morton Publishing Company (customized for COM) ISBN-13: 978-1- 61731-955-6 (Lab Manual)
- Scantron 888-E (5 scantrons)

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. Prerequisite: TSIA2 945-990 ELAR/CRC test AND 5 or higher on Essay OR 910-944 on CRC with 5-6 on Diagnostic Test + 5 or higher on Essay, or IRW 0320 with a grade of "C" or better. BIOL 1408 with a grade "C" or better is strongly recommended as a prerequisite but is not required.

Course requirements:

Lecture Exams & Comprehensive Final Exam: There are 4 in-person exams and 1 in-person comprehensive final exam (CFE). Each lecture exam consists of multiple-choice, fill-in-the-blank, matching, true-false, essay, and identification. Exam dates are listed in the syllabus documents.

Lecture Quizzes: There are 4 lecture quizzes throughout the course. You will have a set time limit to answer the questions. Lecture quizzes will be online the weekend prior to an exam day. Lecture quiz due dates are listed in the syllabus document.

Chapter Quizzes: You will have 15 online chapter quizzes, one-two quizzes per week. Due dates are listed in the syllabus document you will access via D2L from day one.

Lab Activity and Lab Activity Quizzes (LAQ) via Brightspace: There are 12 online lab activities via Brightspace (Respondus not required). Each activity reinforces the material that will appear on the 2 scheduled Lab Practical. You must watch all videos uploaded to the Lab Material area to answer the lab activity quizzes. You must be in appropriate lab attire to participate in the in-person lab activities.

Lab Practicals

There will be 2 lab practicals during this course. These will be taken in class and the dates are listed in the syllabus document.

Professionalism/Discussion: All email and in-person communication need to remain respectful. I am open to concerns, comments, and constructive criticism. However, please make sure all comments are respectful when speaking to me or fellow classmates. Professionalism is 1.0% of your grade; **please be sure to identify your name and class when emailing with a clear explanation of the purpose of your email.** This includes a clear concise email with name and course number, last-minute technical problems because of procrastination, t being prepared for lab. Please see the professionalism document for further details. All l's must be sent from your COM email. Emails from personal email addresses will NOT be opened. Discussion posts will also need to follow the professionalism guidelines. You will have one discussion post per week to complete.

Bonus Points: Points are **not** part of the course requirements; they are given at the discretion of the instructor. There will be multiple opportunities to earn extra points throughout the semester including Mastering A&P. All bonus points will be added to an exam or practical, no exam or practical will exceed 10 bonus points regardless of how many a student has earned.

Determination of Course Grade/Detailed Grading Formula:

Course Assessment	Total Points	Percentage of Course
LECTURE PORTION	700	70.0%
Online Syllabus Quiz	5 points	0.5%
Professionalism/Discussion	10 Points	1.0%
Chapter Quizzes (15)	200 (pts vary per quiz)	20.0 %
Lecture Quizzes (4)	80 (20 pts each)	8.0 %
Lecture Exams (4)	340 (85 pts each)	34.0 %
Comprehensive Final Exam	65 pts	6.5%
LAB PORTION	300	30.0%
Lab Safety Quiz	10 points	1.0%
Lab Activities (12)	120 points	12.0%
Lab Practicals (2)	170 (85 pts each)	17.0%
TOTAL POINTS	1000	100%

Grading Scale:

A = A sum of the points earned throughout the course between 900 and 1000 points

B = A sum of the points earned throughout the course between 800 and 899 points

C = A sum of the points earned throughout the course between 700 and 799 points

D = A sum of the points earned throughout the course between 600 and 699 points

F = A sum of the points earned throughout the course below 600 points

FN = A failure of the course due to non-attendance and non-completion of course assignments

I = An 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

Science Lab Policy (Please Read Carefully)

This course consists of both a lecture and laboratory grade 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.

Late Work, Make-Up, and Extra-Credit Policy:

Exams: Make-up exams are permitted at the discretion of the instructor. Documentation may be necessary for make-up allowance. Once granted permission for make-up, a student will have 7 days to make up the exam. If a student misses the 7-day deadline no make-up will be permitted.

Lab Practicals’: Make-up Lab Practicals’ are permitted at the discretion of the instructor. Documentation may be necessary for make-up allowance. Once granted permission for make-up, a student will have 7 days to make up the exam. If a student misses the 7-day deadline no make-up will be permitted.

Assignments: Make-up Assignments are permitted at the instructor's discretion; please contact the instructor if you need to make up an assignment. Habitual missed assignments will be denied.

Attendance Policy: This class requires students to come to the lab to complete laboratory exercises that are a required part of this course. Absences in three required lab meetings will result in a "F" for the course grade unless there is a documented excuse approved by the instructor (e.g. illness or death in the family, subject to instructors' discretion).

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.		Exam 1-4
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.		Skeletal System Case Study
4. Explain contributions of organs and systems to the maintenance of homeostasis.	CT	Skeletal System Case Stud
5. Identify causes and effects of homeostatic imbalances.		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 1 & 2
9. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations.		Lab Practical 1 & 2
10. Work collaboratively to perform experiments.	TW	pH Lab
11. Demonstrate the steps involved in the scientific method.		Conductivity Lab
12. Communicate results of scientific investigations, analyze data and formulate conclusions.	CS	Conductivity 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	Conductivity Lab

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 D2L or other LMS). **I will not answer emails from personal email addresses.**

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 minimum penalty will be a 0 on the assignment or exam. 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.

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 Chair of the Science Department at 409-933-8330 or by email: sabernathy@com.edu

Course outline: (This schedule is tentative)

Week #	Lecture: Online	Laboratory: In-Person	Due Sunday: Online
1. Jan. 15 – Jan. 21	CH1: The Human Body	Lab Safety Ex. 1-3 & 1-4(Directional/Regional Terms) Ex. 1-5 & 1-6 (Body Cavities/membranes & Planes of section)	Syllabus Quiz Chapter 1 Quiz Lab Safety Quiz LAQ 1
2. Jan. 22 - Jan. 28	CH2: Chemistry	Ex. 2-1 pH Lab (pH, Acids and Bases) Conductivity Intro to Microscopes	Chapter 2 Quiz LAQ 1
3. Jan. 29 - Feb. 04	CH3: Cells	Ex. 4-1 (Organelles and Cell Structures) Ex. 4-4 (Mitosis and the Cell Cycle) Diffusion Lab	Chapter 3 Quiz Lecture Quiz 1 LAQ 3
4. Feb. 05 - Feb 11	CH4: Tissues	Exam 1 Ex. 5-1 to 5-4 (Epithelial, Connective, Muscle and Nervous Tissues)	Chapter 4 Quiz LAQ 4
5. Feb. 12 - Feb 18	CH5: Integumentary System	Ex. 6-1(Skin Anatomy & Accessory Struct.) Ex.6-2 (Histology of Integument) Ex. 6-3 (Touch Receptor Distribution) Ex. 6-4 (Fingerprinting)	Chapter 5 Quiz LAQ 5
6. Feb. 19 – Feb. 25	CH6: Bone/Skeletal Tissue CH7: The Skeleton	Ex. 7-1 (Micro. Anatomy of Bone) Ex. 7-3 (Bone Marking/Bone Shapes) Ex. 7-4 (Anatomy of Long Bones) Ex. 8-1 to 8-3 (Skeleton Anatomy)	Chapter 6 Quiz Lecture Quiz 2 LAQ 6
7. Feb. 26 - Mar. 03	CH7: The Skeleton cont'	Exam 2 Forensic Lab	Chapter 7 Quiz LAQ 7
8. Mar. 04 - Mar. 10	CH8: Joints	Lab practical 1 Ex. 9-1 (Classification of Joints) Ex. 9-2 Synovial Joints Ex. 9-3 (Knee Joint)	Chapter 8 Quiz
03/11-03/17	SPRING BREAK	SPRING BREAK	SPRING BRK
9. Mar. 18 - Mar. 24	CH9/10: Muscular System	Ex. 10-1 (Skeletal Muscle Anatomy) Ex. 11-1 (Skeletal Muscle Anat. & Micro) Ex. 11-3 (Smooth/Cardiac Muscle)	Chapter 9 Quiz LAQ 8
10. Mar. 25 - Mar. 31	CH9/10: Muscular System cont.'	Vernier Muscle Fatigue Lab	Chapter 10 Quiz
11. Apr. 01 - Apr. 07	CH11: Nervous Sys. & Tissue	Ex. 12-1 (Neurons and Neuroglia) Ex.12-2 (Nervous Tissue Physiology) Neural Synapse Lab	Chapter 11 Quiz Lecture Quiz 3 LAQ 9
12. Apr. 08 - Apr. 14	CH12: Central Nervous System	Exam 3 Ex. 13-1 (Anatomy of the Brain) Ex. 13-2 (Spinal Cord Anatomy)	Chapter 12 Quiz LAQ 10
13. Apr. 15 - Apr. 21	CH13: Peripheral Nervous Sys. CH14: Autonomic Nervous Sys.	Ex. 14-2 (Cranial Nerve Struct & Function) Ex. 14-3 (Spinal Nerves and Reflex) Ex. 14-4 (The Autonomic Nervous)	Chapter 13 Quiz Chapter 14 Quiz LAQ 11
14. Apr. 22 - Apr. 28	Withdraw Day (4/22) CH15: Special Senses- Eyes/Ears	Ex. 15-1 (Anat. of Eye and Vision) Ex. 15-2 (Anat. of an Ear, Hearing & Equil.) Ex. 15-4 (Physio. of the General Senses)	Chapter 15 Quiz Lecture Quiz 4 LAQ 12
15. Apr. 29 - May 05	No Lecture Video	Exam 4	N/A
16. May 06 – May 10	No Lecture Video	Lab Practical 2	N/A

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_2023-2024_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 with 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: Any student with a documented disability needing academic accommodation is requested to contact Kimberly Lachney at 409-933-8919 or klachney@com.edu. The Office of Services for Students with Disabilities is in the 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 February 28. The last date to withdraw from the 16-week session is April 22. The last date to withdraw for the 2nd 8-week session is May 1. The last date to withdraw for spring mini session is May 29.

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.