



BIOL 2401.221CL
Anatomy & Physiology I
Spring 2022
Tuesday/Thursday 6:00PM-8:50PM
Steam Bldg. #22 Room 339

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

Student hours and location: On-campus in STE325-23: M/W 12:30-2:00pm; T/TH 4:30-6:00pm; Virtual hours by appointment <https://calendly.com/ssmith10/30min>: M/W 5:30-6:30pm

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 BB = NO PURCHASE REQUIRED)
- Amerman, E., 2017. Exploring Anatomy & Physiology in the Laboratory, 3rd edition. Englewood, Colorado, Morton Publishing Company (customized for COM) ISBN-13: 978-1- 61731-955-6 (Lab Manual)

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 exams and 1 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 assigned the last class prior to an exam day. Lecture quiz due dates are listed in the syllabus document.

Pre-Lecture Quizzes: There will be 15 pre-lecture quizzes throughout the semester, these will be in-person quizzes to ensure you have read the chapter prior to coming to class. They will be multiple-choice, fill in the blank, matching or short answer questions.

Mastering A&P Assignments: You will have 10 online assignments in the Modified-Mastering A&P. Due dates are listed in the syllabus document. **Required online component**, you will access via BB from day one.

Lab Activity and Lab Activity Quizzes (LAQ) via BlackBoard: There are 12 online lab activities via BB (Respondus not required). Each activity reinforces the material that will appear on the 2 scheduled Lab Practicals. You must watch all videos uploaded to the Lab Material area to answer the lab activity quizzes. **Lab quizzes will be the pre-lab requirement, this will need to be done before each lab.** 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: 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 you 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, not prepared for lab. Please see the professionalism document for further details. All email's must be sent from your COM email. Emails from personal email addresses will NOT be opened.

Bonus Points Bonus: 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. All bonus points will be part of an exam or practical.

Determination of Course Grade/Detailed Grading Formula:

Course Assessment	Total Points	Percentage of Course
LECTURE PORTION	700	70.0%
Syllabus Quiz	5 points	0.5%
Pre-Lecture Quiz (15)	60 points(4 pts each)	6.0%
Professionalism	10 Points	1.0%
Mastering A&P Assignments (10)	200 (20 pts each)	20.0 %
Lecture Quizzes (4)	60 (15 pts each)	6.0 %
Lecture Exams (4)	300 (75 pts each)	30.0 %
Comprehensive Final Exam	65 points	6.5%
LAB PORTION	300	30.0%
Lab Safety Quiz	10 points	1.0
Lab Activities (online) (12)	120 points (10pts each)	12.0%
Lab Practicals (2)	170 (85 pts each)	17.0%
TOTAL POINTS	1000	100%

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** An incomplete may be assigned at the discretion of the instructor in accordance with the poli
- 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: Exams are administered in class. Make-ups are allowed at the discretion of the instructor. A note from a doctor or employer may be required.

LAB PRACTICALS: Administered via in class. Make-ups are allowed at the discretion of the instructor. A note from a doctor or employer may be required.

MISSED ASSIGNMENTS: Please contact the instructor if you missed an assignment to make arrangement to compete the missed assignment. This is at the instructor discretion.

Attendance Policy: Students are required to come to lab to complete the face-to-face laboratory exercises required in the laboratory component 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).

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.		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,	EQS	Conductivity Lab

and summarizing, to make decisions, recommendations, and predictions.		
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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.

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: Course Schedule Outline: (SUBJECT TO CHANGE IF NEEDED)

WK	DAYS	LECTURE On-Campus	LAB On-Campus	LAB Online
1	1/18 to 1/23	CH1: The Human Body (PLQ1) CH2: Chemistry	Lab Safety & Lab Safety Quiz Ex. 1-1 through 1-5	Ex. 1-4 & 1-5 LAQ 1 (online)
2	1/24 to 1/30	CH2: Chemistry (PLQ2) Mastering ASGN 1 DUE (CH2)	Conductivity Lab DEMO Ex. 2-1: pH Lab	Ex. 2-1, Conductivity Lab, Intro to Microscopes LAQ 2 (online)
3	1/31 to 2/06	CH3: Cells (PLQ3) Mastering ASGN 2 DUE (CH3) Lecture Quiz 1 (Ch. 1-3)	Ex. 4-1 (Cell) Ex. 4-2 (Diffusion Beaker and Plates-DEMO) Ex. 4-4 (Mitosis)	Ex. 4-1, 4-2, & 4-4 LAQ 3 (online)
4	2/07 to 2/13	Exam 1 (Ch. 1-3) CH4: Tissues (PLQ4) Mastering ASGN 3 DUE (CH4)	Exercises 5-1 through 5-4 (Tissues)	Ex. 5-1 to 5-4 LAQ 4 (online)
5	2/14 to 2/20	CH5: Integumentary System (PLQ5) Mastering ASGN 4 DUE (CH5) Lecture Quiz 2 (Ch. 4-5)	Ex. 6-1(Skin Anatomy) Ex. 6-2 (Histology of Integument) Ex. 6-4 (Fingerprinting)	Ex. 6-1, 6-2, & 6-4 LAQ 5 (online)
6	2/21 to 2/27	CH6: Bone and Skeletal Tissue (PLQ6) Exam 2 (Ch. 4-5)	Ex. 7-1 (Histology of Osseous Tissue) Ex. 7-3 (Bone Marking and Bone Shapes) Ex. 7-4 (Anatomy of Long Bones) Ex. 8-1 to 8-3 (SLO8)	Ex. 7-1, 7-4, 8-1 to 8-3 LAQ 6 (online)
7	2/28 to 3/06	CH7: The Skeleton (PLQ7) Mastering ASGN 5 DUE (CH6/7)	Forensic Lab Handout Ex. 8-4 (Disarticulated Skeleton)	No online labs Review previous activities
8	03/07 to 3/13	CH8: Joints (PLQ8) Mastering ASGN 6 Due (CH8)	Lab practical 1 Ex.9-3 (Knee Joint)-lab equipment Ex. 9-1 Classification of Joints Ex. 9-2 Synovial Joints Ex. 9-5 Motions of Synovial Joints	Ex. 9-3 LAQ 7 (online)
	3/14 to 3/20	SPRING BREAK	SPRING BREAK	SPRING BREAK
9	3/21 to 3/27	CH9: Muscle and Tissue (PLQ9) Mastering ASGN 7 Due (CH9/10) Lecture Quiz 3	Ex. 10-1 (Skeletal Muscle Anatomy)	Ex. 10-1 & Ex. 11-1 LAQ 8 (online)
10	3/28 to 4/03	CH10: Muscular System (PLQ10) Mastering ASGN 7 Due (CH9/10) Lecture Quiz 3	Muscle Fatigue Handout Ex. 11-1 (Microscopic Muscle Anat)	
11	4/04 to 4/10	CH11: Nervous System & Tissue (PLQ11) Exam 3	Ex. 12-1 Neurons and Neuroglia Neural Synapse Lab Exercise	Ex. 12-1 LAQ 9 (online)
12	4/11 to 4/17	CH12: Central Nervous System (PLQ12) Mastering ASGN 8 DUE (CH11/12)	Ex. 13-1 Brain Models & Dissection	Ex. 13-1 LAQ 10 (online)
13	4/18 to 04/24	CH13:PeripheralNervousSystem(PLQ13) CH14: Autonomic Nervous System(PLQ14) Mastering ASGN 9 DUE (CH13/14)	Ex. 14-2 Cranial Nerves Ex. 14-3 Spinal Nerve Reflex	Ex. 14-2 & Ex. 14-3 LAQ 11 (online)
14	4/25 to 5/01	CH15: Special Senses (Eyes & Ears)(PLQ15) Mastering ASGN 10 DUE (CH15) Lecture Quiz 4	Ex. 15-1 Anatomy of Eye & Dissect Ex. 15-2 Anatomy of Ear & Hearing	Ex. 15-1 & Ex. 15-2 LAQ 12(online)
15	5/02 to 5/08	Exam 4 & Final Exam Review	Lab practical 2	
16	5/09 to 5/13	Comprehensive Final Exam	No lab this week	

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://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.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.* https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf

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: Any student with a documented disability needing academic accommodations is requested to contact Holly Bankston at 409-933-8520 or hbankston@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center.

Counseling Statement: Any student needing counseling services is requested to please contact Holly Bankston in the student success center at 409-933-8520 or hbankston@com.edu. Counseling services are available on campus in the student center for free and students can also email counseling@com.edu to set up their appointment. Appointments are strongly encouraged; however, some concerns may be addressed on a walk-in basis.

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 March 2. The last date to withdraw from the 16-week session is April 25. The last date to withdraw for the 2nd 8-week session is May 4.

F_N Grading: The F_N grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The F_N 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 F_N grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an F_N 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.

COVID-19 Statement: All students, faculty, and staff are expected to familiarize themselves with materials and information contained on the College of the Mainland's Coronavirus Information site at www.com.edu/coronavirus. In compliance with Governor Abbott's May 18 Executive Order, face coverings/masks will no longer be required on COM campus. Protocols and college signage are being updated. We will no longer enforce any COM protocol that requires face coverings. We continue to encourage all members of the COM community to distance when possible, use hygiene measures, and get vaccinated to protect against COVID-19. Please visit com.edu/coronavirus for future updates.