



BIOL2401.221C3

Anatomy and Physiology I

Fall 2024

We meet on Monday and Wednesday from 6 pm to 8:50 pm in STE-333.

Instructor Information: Dr. Jantz; kjantz@com.edu; 409-933-8255; FAB 122

Student hours and location:

Monday/Wednesday on-campus from 4:30 to 6 pm on the 3rd floor of the STEAM Building

Tuesday on-campus from 11 am to 12:30 pm in FAB 122

Thursday virtual hours via email or Teams by appointment only from 9:00 to 11:00 am

Saturday virtual hours via email or Teams by appointment only from 12:40 pm to 1:40 pm

Required Textbook/Materials:

- Marieb, E.N. & Hoehn, K., 2019. Human Anatomy and Physiology, 11th ed. Boston, MA; Pearson Education, Inc. (**eBook via VitalSource in Brightspace**)
- Amerman, E., 2017. Exploring Anatomy & Physiology in the Laboratory, 3rd edition. Englewood, Colorado, Morton Publishing Company (customized for COM; **pages will be missing**) 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 placed on system interrelationships and regulating physiological functions that maintain 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:

Exams & Comprehensive Final Exam

All exams, 4 exams and 1 comprehensive final exam (CFE), will be administered in class. Each lecture exam consists of multiple-choice, matching, true-false, and identification questions (no essay or fill-in-the-blank questions). Exam dates are listed in the “What’s due when?” document and Brightspace.

Online Pre-Exam Quizzes via Brightspace

There will be 4 online pre-exam quizzes in Brightspace. Each quiz consists of multiple-choice questions. You will have 60 minutes to take the quiz. The “What’s due when?” document lists lecture quiz due dates.

Online Chapter Quizzes via Brightspace:

There will be 13 online chapter quizzes in Brightspace. Each quiz consists of multiple-choice questions. You will have 60 minutes to take the quiz. The “What’s due when?” document lists lecture quiz due dates.

Online Lab Activity Quizzes (LAQ) via Brightspace

There will be 12 online lab activities in Brightspace. Each activity reinforces the material you will be tested on in the 2 scheduled lab practicals. **You are responsible for watching all videos uploaded to the Lab Material area for each lab activity quiz.** The “What’s due when?” document lists lab quiz due dates.

Lab Practicals

Two lab practicals will be administered in person in the lab. The “What’s due when?” document lists the practical dates.

Bonus Points:

Bonus points are **not** part of the course requirements, but there will be opportunities to earn them throughout the semester. All bonus points will be added to an exam or practical.

Determination of Course Grade/Detailed Grading Formula:

| Course Assessment | Total Points | Percentage of Course |
|----------------------------------------------|---------------------|-----------------------------|
| LECTURE PORTION | 700 | 70.0% |
| Online Syllabus Quiz | 10 points | 1.0% |
| Online Chapter Quizzes (points vary by quiz) | 200 points | 20.0 % |
| Online Pre-Exam Quizzes (4) | 100 (25 pts each) | 10.0 % |
| Exams (4), in-person | 340 (85 pts each) | 34.0 % |
| Comprehensive Final Exam, in-person | 50 points | 5.0% |
| LAB PORTION | 300 | 30.0% |
| Online Lab Safety Quiz | 10 points | 1.0% |
| Online Lab Activity Quizzes (12) | 120 (10 pts each) | 12.0% |
| Lab Practicals (2), in person | 170 (85 pts each) | 17.0% |
| TOTAL POINTS | 1000 | 100% |

Grading Scale:

- A** = between 900 and 1000 points
- B** = between 800 and 899.9 points
- C** = between 700 and 799.9 points
- D** = between 600 and 699.9 points
- F** = below 599.9 points
- FN** = failure of the course due to non-attendance and non-completion of course assignments
- I** = may be assigned at the instructor’s discretion by the college’s incomplete policy.
- W** = withdrawal may be assigned by the college’s withdrawal policy.

Science Lab Policy:

This course consists of both a lecture and laboratory grade component. Students must earn 70% or better in the laboratory component to pass the course successfully. **Earning less than 70% in the laboratory component will result in an F for the course, regardless of the lecture grade.** A passing grade for the course is necessary for passing the laboratory component and failing the lecture component. Deviations from this policy will be at the sole discretion of the instructor.

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

EXAMS: Exam make-ups are allowed at the discretion of the instructor.

LAB PRACTICALS: Practical make-ups are allowed at the discretion of the instructor.

MISSED ASSIGNMENTS: If you miss an assignment, don't hesitate to contact the instructor to make arrangements to complete it.

Attendance Policy:

Students are required to come to the 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 an "F" for the course grade unless the instructor approves a documented excuse.**

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 statements requiring monitoring and communication expectations via Brightspace or other LMS).

| Student Learner Outcome (SLO) | Maps to Core Objective(s) | Assessed via this Assignment |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------------|
| 1. Use anatomical terminology to identify and describe the locations of major organs of each system covered. | | Exams 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 the contributions of organs and systems to maintaining homeostasis. | CT | Skeletal System Case Study |
| 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 | Skeletal System Case Study |
| 11. Demonstrate the steps involved in the scientific method. | | Conductivity Lab |
| 12. Communicate results of scientific investigations, analyze data and formulate conclusions. | CS | Skeletal System Case Study |
| 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 | Skeletal System Case Study |

Academic Dishonesty:

Disciplinary actions will be taken for students who exhibit disorderly conduct, cheat on exams, submit plagiarized work, 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 use the provided contact information. If you continue to have questions after discussing your concern with me, please contact Prof. Abernathy at sabernathy@com.edu or 409-933-8330.

Course Schedule (SUBJECT TO CHANGE IF NEEDED)

| WK | DAYS | LECTURE | LAB |
|----|----------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| 1 | 8/19 to 8/25 | CH1: The Human Body CH2: Chemistry Syllabus Quiz (online) Chapter 1 Quiz | Lab Safety Quiz (online) Ex. 1-3, 1-4, 1-5, 1-6 LAQ 1 (online) |
| 2 | 8/26 to 9/1 | CH2: Chemistry CH3: Cells Chapter 2 Quiz | Ex. 2-1, Conductivity Lab LAQ 2 (online) |
| 3 | 9/2 to 9/8 | College Holiday on 9/2 CH3: Cells Chapter 3 Quiz | Ex. 4-1, 4-4, Diffusion Lab, Intro to Microscopes LAQ 3 (online) |
| 4 | 9/9 to 9/15 | CH4: Tissues Pre-Exam Quiz 1 (online) Exam 1, in-person Chapter 4 Quiz | Ex. 5-1 to 5-4 LAQ 4 (online) |
| 5 | 9/16 to 9/22 | CH5: Integumentary System Chapter 5 Quiz | Ex. 6-1, 6-2, 6-3, 6-4 LAQ 5 (online) |
| 6 | 9/23 to 9/29 | CH6: Bone and Skeletal Tissue CH7: The Skeleton Chapter 6/7 Quiz | Ex. 7-1, 7-3, 7-4, 8-1 to 8-3 LAQ 6 (online) |
| 7 | 9/30 to 10/6 | CH8: Joints Chapter 8 Quiz | Forensic Lab Ex. 8-4, 9-1, 9-2, 9-3 LAQ 7 (online) |
| 8 | 10/7 to 10/13 | Practical 1 Review Pre-Exam Quiz 2 (online) Exam 2, in-person | Lab practical 1, in-person |
| 9 | 10/14 to 10/20 | CH9/10: Muscular System Chapter 9/10 Quiz | Ex. 10-1, 11-1, 11-3 LAQ 8 (online) |
| 10 | 10/21 to 10/27 | CH11: Nervous System & Tissue Chapter 11 Quiz | Ex. 10-1, 11-1, 11-3 Vernier Muscle Analysis Lab |
| 11 | 10/28 to 11/3 | CH12: Central Nervous System Chapter 12 Quiz | Ex. 12-1, 12-2 Neural Synapse Lab LAQ 9 (online) |
| 12 | 11/4 to 11/10 | CH13: Peripheral Nervous System Pre-Exam Quiz 3 (online) Exam 3, in-person Chapter 13 Quiz | Ex. 13-1, 13-2 Sheep Brain Dissection LAQ 10 (online) |
| 13 | 11/11 to 11/17 | Withdraw Day (11/15) CH14: Autonomic Nervous System Chapter 14 Quiz | Ex. 14-2, 14-3, 14-4 LAQ 11 (online) |
| 14 | 11/18 to 11/24 | CH15: Special Senses (Eyes & Ears) Chapter 15 Quiz | Ex. 15-1, 15-2, 15-4 LAQ 12 (online) |
| 15 | 11/25 to 12/1 | Pre-Exam Quiz 4 (online) Exam 4, in-person Comprehensive Final Exam, in-person | College Holiday 2pm on 11/26 to 11:59pm on 12/1 |
| 16 | 12/2 to 12/5 | Lab practical 2, in-person | Fall Graduation on 12/7 |

Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a grade change 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 course outcome. 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: The College of the Mainland is committed to providing students with the necessary support and tools for success in their college careers. Our Tutoring Services, Library, Counseling, and Student Services offer support. 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 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 the 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 before the last eligible day for a "W" grade. Before withdrawing, students should speak with the instructor and consult an advisor. According to state law, students can withdraw only six times during their college career. 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 failure cases *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 have 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 and housing, or 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.

Nondiscrimination Statement:

The College District prohibits discrimination, including harassment, against any individual based on race, color, religion, national origin, age, veteran status, disability, sex, sexual orientation, gender (including gender identity and gender expression), or any other basis prohibited by law. Retaliation against anyone involved in the complaint process violates College District policy.