



## BIOL2402.104H3

### Anatomy and Physiology II

Fall 2024

All chapter lecture recordings are available via Brightspace.  
We meet each Wednesday from 2 am to 4:50 am in STE-334.

**Instructor Information:** Dr. Jantz; [kjantz@com.edu](mailto:kjantz@com.edu); 409-933-8255; FAB 122

#### Student hours and location:

Wednesday on-campus from 5 to 6 pm on the 3<sup>rd</sup> floor of the STEAM Building

Tuesday on-campus from 11 am to 12:30 pm & 2 pm to 4 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**)
- **Web camera** (built into your computer or attachable) to take exams. The device may be purchased from the college bookstore or a third-party vendor.

**Course Description:** Anatomy and Physiology II is the second part of a two-course sequence. It is a study of the structure and function of the human body, including the following systems: endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis. **Prerequisites: 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 2401 with a grade of "C" or better.**

#### Course requirements:

##### *Online Exams & Comprehensive Final Exam via Brightspace*

All exams, 4 exams and 1 comprehensive final exam (CFE) will be administered online in Brightspace.

**Exams are administered in Brightspace/D2L using Respondus Lockdown Browser with Monitor.**

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. "What's due when?" document lists lecture quiz due dates

##### *Online Chapter Quizzes via Brightspace:*

There will be 13 online lecture 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
<b>LECTURE PORTION</b>	<b>700</b>	<b>70.0%</b>
Online Syllabus Quiz	5 points	0.5%
Online Respondus Quiz	5 points	0.5%
Online Chapter Quizzes (points vary by quiz)	200 points	20.0 %
Online Pre-Exam Quizzes (4)	100 (25 pts each)	10.0 %
Online Exams (4)	340 (85 pts each)	34.0 %
Online Comprehensive Final Exam	50 points	5.0%
<b>LAB PORTION</b>	<b>300</b>	<b>30.0%</b>
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%
<b>TOTAL POINTS</b>	<b>1000</b>	<b>100%</b>

### 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).

<b>Student Learner Outcome (SLO)</b>	<b>Maps to Core Objective(s)</b>	<b>Assessed via this Assignment</b>
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.		Comprehensive Final Exam
3. Describe the interdependency and interactions of the systems.		Exam 1
4. Explain the contributions of organs and systems to the maintenance of homeostasis.	<b>CT</b>	<b>Urinalysis Lab</b>
5. Identify causes and effects of homeostatic imbalances.	<b>CS</b>	<b>Urinalysis Lab</b>
6. Describe modern technology and tools used to study A&P		Lab Practical 1
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 2
10. Work collaboratively to perform experiments.	<b>TW</b>	<b>Urinalysis Lab</b>
11. Demonstrate the steps involved in the scientific method.		Differential WBC Count
12. Communicate results of scientific investigations, analyze data and formulate conclusions.		Ex 19-2 Blood Typing
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.	<b>EQS</b>	<b>Urinalysis Lab</b>

**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](mailto:sabernathy@com.edu) or 409-933-8330.

## Course Schedule (SUBJECT TO CHANGE IF NEEDED)

WK	DAYS	LECTURE	LAB
1	8/19 to 8/25	CH16: Endocrine System <b>Chapter 16 Quiz (online)</b> Syllabus Quiz (online)	<b>Lab Safety Quiz (online)</b> Ex. 16-1, 16-2, and 16-4 Endocrine System, Organs, Mystery <b>LAQ 1 (online)</b>
2	8/26 to 9/1	CH18: The Heart <b>Chapter 18 Quiz (online)</b>	Ex. 17-1 Anatomy of the Heart, 17-2 Cardiac Muscle Histology; Pig Heart Dissection <b>LAQ 2 (online)</b>
3	9/2 to 9/8	<b>College Holiday on 9/2</b> CH19: Blood Vessels <b>Chapter 19 Quiz (online)</b> Respondus Quiz (online)	Ex. 19-1 Heart Auscultation Ex. 19-5 ECG <b>LAQ 3 (online)</b>
4	9/9 to 9/15	CH17: The Blood <b>Pre-Exam Quiz 1 (online)</b> <b>Exam 1 (online)</b> <b>Chapter 17 Quiz (online)</b>	Ex. 18-1 Major Arteries; Ex. 18-2 Major Veins; Ex. 14-4 ANS: Blood pressure <b>LAQ 4 (online)</b>
5	9/16 to 9/22	CH20: Lymphatic System	Ex. 20-1/20-2 Blood Composition/ABO & Rh Blood Groups; Ex. 20-4 Blood Donation <b>LAQ 5 (online)</b>
6	9/23 to 9/29	CH21: Immunity <b>Chapter 20/21 Quiz (online)</b>	Ex. 20-3 Murder Mystery, Ex. 21-1 and 21-2 Lymphatic System Anatomy and Histology, Ex. 21-3 Immune Response <b>LAQ 6 (online)</b>
7	9/30 to 10/6	CH22: Respiratory System <b>Chapter 22 Quiz (online)</b>	<b>Lab practical 1, in-person</b>
8	10/7 to 10/13	<b>Pre-Exam Quiz 2 (online)</b> <b>Exam 2 (online)</b> CH23: Digestive System	Ex. 22-1 Respiratory System Anatomy; Construct a Lung Handout; Ex. 24-1 Digestive System Anatomy <b>LAQ 7 (online)</b>
9	10/14 to 10/20	CH23: Digestive System CH24: Nutrition <b>Chapter 23/24 Quiz (online)</b>	Ex. 24-1 Digestive System Anatomy Lactase Enzyme Activity Lab <b>LAQ 8 (online)</b>
10	10/21 to 10/27	CH25: The Urinary System	Ex. 25-1 Urinary System Anatomy Kidney Dissection <b>LAQ 9 (online)</b>
11	10/28 to 11/3	CH26: Fluid Balance <b>Chapter 25/26 Quiz (online)</b>	Ex. 26-1 The Model Kidney Urinalysis Lab <b>LAQ 10 (online)</b>
12	11/4 to 11/10	CH27: Reproductive System <b>Pre-Exam Quiz 3 (online)</b> <b>Exam 3 (online)</b>	Ex. 27-1 Male Reproductive Anatomy Ex. 27-2 Female Reproductive Anatomy
13	11/11 to 11/17	<b>Withdraw Day (11/15)</b> CH28: Development <b>Chapter 27/28 Quiz (online)</b>	Ex. 28-1/28-2 Fertilization and Embryogenesis SynDaver <b>LAQ 11 (online)</b>
14	11/18 to 11/24	CH29: Heredity <b>NO Chapter 29 Quiz</b>	Ex. 28-3 Heredity Pig Uterus Dissection <b>LAQ 12 (online)</b>
15	11/25 to 12/1	<b>Pre-Exam Quiz 4 (online)</b> <b>Exam 4 (online)</b>	<b>Comprehensive Final Exam (online)</b> Lab Practical 2 Review
16	12/2 to 12/5	<b>Lab practical 2, in-person</b>	<b>Fall Graduation on 12/7</b>

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## 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](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](mailto: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 1<sup>st</sup> 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 2<sup>nd</sup> 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](mailto:deanofstudents@com.edu) or [communityresources@com.edu](mailto: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.