



**BIOL2402.104H3**  
**Anatomy and Physiology II**  
**Spring 2025**  
**Tuesday from 8-10:50 am in STE-334**

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

**Student hours and location**

Tuesday on-campus from 11:00 am to 12:00 pm in FAB 122 and virtually from 2:00 pm to 4:30 pm  
Wednesday on-campus from 2:00 to 6:00 pm FAB 122

**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; some pages will be missing) ISBN-13: 978-1-61731-955-6 (**Lab Manual**)
- **Web camera** (either built into your computer or attachable) to take exams.

**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:***

There are 4 online exams and 1 comprehensive final exam (CFE) online. Each lecture exam consists of multiple-choice, fill-in-the-blank, matching, true-false, essay, and identification questions. Exam dates are listed in the "What's due when/?" document and in Brightspace/D2L.

***Online Exam Quizzes via Brightspace/D2L:***

There are 4 online exam quizzes in Brightspace/D2L. Each quiz consists of multiple-choice questions. You will have 60 minutes to take the quiz. Exam quizzes will be assigned the week before an exam. The "What's due when/?" document lists exam quiz due dates.

***Online Chapter Quizzes via Brightspace/D2L:***

You will have 13 online chapter quizzes. The due dates are listed in the "what's due when/?" document by 11:59 p.m. on Saturday. This is a required online component.

***Online Lab Activity Quizzes (LAQ) via Brightspace/D2L:***

There are 12 online lab activities. Each activity reinforces material found in the 2 scheduled lab practicals. **You are responsible for watching all videos uploaded to the Lab Material area for a lab activity.** The "What's due when/?" document lists lab quiz due dates.

***In-person Lab Practicals:***

There are 2 lab practicals administered in the lab. Practical dates are listed in the “What’s due when/?” document.

***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 part of an exam or practical.

**Determination of Course Grade/Detailed Grading Formula:**

| <b>Course Assessment</b>                     | <b>Total Points</b> | <b>Percentage of Course</b> |
|--|---------------------|-----------------------------|
| <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 Exam Quizzes (4)                      | 100 (25 pts each)   | 10.0%                       |
| Lecture Exams (4)                            | 340 (85 pts each)   | 34.0%                       |
| 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)                           | 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 discretion of the instructor in accordance with the college’s incomplete 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 overall course 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:** 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 missed an assignment, please contact me to make arrangements to complete it.

**Attendance Policy:**

Attendance at the face-to-face laboratory component of the course is required. **Absence for three or more 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. In addition to your COM email, announcements pertaining to the course content, due date, and other updates will be posted in Brightspace. You are required to actively monitor announcement posts to maintain awareness of any course changes.

| <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 (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 use the contact information previously provided. If you continue to have questions after discussing your concern with me, don't hesitate to contact Dr. Barney at [rbarney@com.edu](mailto:rbarney@com.edu) or 409-933-8727.

**Course Schedule (SUBJECT TO CHANGE IF NEEDED)**

| WK | DAYS         | LECTURE  | LAB   |
|----|--------------|--|---|
| 1  | 1/13 to 1/19 | CH16: Endocrine System<br>Chapter 16 Quiz<br>CH18: The Heart<br>Syllabus Quiz (online) | Ex. 16-1, 16-2, and 16-4 Endocrine System/Organs/Mystery<br>Lab Safety Quiz (online)<br>LAQ 1 (online)                                |
| 2  | 1/20 to 1/26 | CH18: The Heart<br>Chapter 18 Quiz<br>Respondus Quiz (online)                          | Ex. 17-1 Anatomy of the Heart, 17-2 Cardiac Muscle Histology<br>Ex. 19-1 Heart Auscultation<br>Pig Heart Dissection<br>LAQ 2 (online) |
| 3  | 1/27 to 2/02 | CH19: Blood Vessels<br>Chapter 19 Quiz   | Ex. 18-1 Major Arteries<br>Ex. 18-2 Major Veins<br>Ex. 19-5 ECG<br>LAQ 3 (online)   |
| 4  | 2/03 to 2/9  | CH17: The Blood<br>Exam Quiz 1 (online)<br>Exam 1 (online)<br>Chapter 17 Quiz          | Ex. 20-1/20-2 Blood Composition/ABO & Rh Blood Groups<br>Ex. 20-4 Blood Donation<br>LAQ 4 (online)                                    |
| 5  | 2/10 to 2/16 | CH20: Lymphatic System   | Ex. 21-1 and 21-2 Lymphatic System Anatomy and Histology<br>LAQ 5 (online)  |
| 6  | 2/17 to 2/23 | CH21: Immunity<br>Chapter 20/21 Quiz   | Ex. 20-3 Murder Mystery<br>Lab Practical 1 Review<br>LAQ 6 (online)   |
| 7  | 2/24 to 3/02 | CH22: Respiratory System<br>Chapter 22 Quiz  | Lab practical 1   |
| 8  | 3/03 to 3/9  | Exam Quiz 2 (online)<br>Exam 2 (online)<br>CH23: Digestive System                      | Ex. 22-1 Respiratory System Anatomy<br>Construct a Lung Handout<br>LAQ 7 (online)   |
| 9  | 3/10 - 3/16  | CH23: Digestive System<br>CH24: Nutrition<br>Chapter 23/24 Quiz                        | Ex. 24-1 Digestive System Anatomy<br>Lactase Enzyme Activity Lab<br>LAQ 8 (online)  |
|    | 3/17 to 3/23 | <b>SPRING BREAK</b>  | <b>SPRING BREAK</b>   |
| 10 | 3/24 to 3/30 | CH25: The Urinary System   | Ex. 25-1 Urinary System Anatomy<br>Kidney Dissection<br>LAQ 9 (online)  |
| 11 | 3/31 to 4/6  | CH26: Fluid Balance<br>Chapter 25/26 Quiz  | Ex. 26-1 The Model Kidney<br>Urinalysis Lab<br>LAQ 10 (online)  |
| 12 | 4/7 to 4/13  | CH27: Reproductive System<br>Exam Quiz 3 (online)<br>Exam 3 (online)                   | Ex. 27-1 & 27-2 Male and Female Reproductive Anatomy<br>LAQ 11 (online)   |
| 13 | 4/14 to 4/20 | CH28: Development<br>Chapter 27/28 Quiz  | Ex. 28-1/28-2 Fertilization and Embryogenesis<br>Pig Dissection<br>LAQ 12 (online)  |
| 14 | 4/21 to 4/27 | CH29: Heredity<br>April 21 is Withdraw day.  | Ex. 28-3 Heredity<br>Pig Uterus Dissection  |
| 15 | 4/28 to 5/04 | Exam Quiz 4 (online)<br>Exam 4 (online)  | Lab Practical 2 Review<br>Comprehensive Final Exam (online)   |
| 16 | 5/05 to 5/8  |  | Lab practical 2   |

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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. 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:

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 February 26. **The last date to withdraw from the 16-week session is April 21.** The last date to withdraw for the 2<sup>nd</sup> 8-week session is April 30.

**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 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 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.