



**BIOL2402.221CL**  
**Anatomy and Physiology II**  
**Spring 2024**  
**Monday & Wednesday from 6-8:50 pm in STE-334**

**Instructor Information:** Dr. Jantz; [kjantz@com.edu](mailto:kjantz@com.edu); 409-933-8255; STE-325.19

**Student hours and location:**

Monday on-campus from 4:00-6:00 pm in STE-325.19  
Tuesday virtual hours via email or Teams by appointment only 11:00 am to 12:30 pm  
Wednesday on-campus from 12:00-2:00 pm and 5-6 pm in STE-325.19  
Thursday virtual hours via email or Teams by appointment only 7:00 am to 8 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; some pages will be missing) ISBN-13: 978-1-61731-955-6 (**Lab Manual**)

**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:**

***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 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 prior to 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. Due dates are listed in the “what’s due when/?” document by 11:59 pm on Saturday. 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.

***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** a part of the course requirements, but there will be opportunities to earn bonus points 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	10 points	1.0%
Online Chapter Quizzes (points vary by quiz)	200 points	20.0%
Online Exam Quizzes (4)	100 (25 pts each)	10.0%
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.

**W** = withdrawal may be assigned in accordance with 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 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:** Please contact the instructor if you missed an assignment to make arrangements to complete the missed assignment.

**Attendance Policy:**

Attendance of the face-to-face laboratory component of the course is **required**. **Being absent 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 these 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 contact me using the contact information previously provided. 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	1/15 to 1/21	<b>College Holiday</b> CH16: Endocrine System <b>Chapter 16 Quiz</b>	Ex. 16-1, 16-2, and 16-4 Endocrine System/Organs/Mystery <b>Lab Safety Quiz (online)</b> <b>LAQ 1 (online)</b>
2	1/22 to 1/28	<b>Syllabus Quiz (online)</b> CH18: The Heart <b>Chapter 18 Quiz</b>	Ex. 17-1 Anatomy of the Heart, 17-2 Cardiac Muscle Histology Pig Heart Dissection <b>LAQ 2 (online)</b>
3	1/29 to 2/04	CH19: Blood Vessels <b>Chapter 19 Quiz</b>	Ex. 19-1 Heart Auscultation Ex. 19-5 ECG <b>LAQ 3 (online)</b>
4	2/05 to 2/11	CH17: The Blood <b>Exam Quiz 1 (online)</b> <b>Exam 1</b> <b>Chapter 17 Quiz</b>	Ex. 18-1 Major Arteries Ex. 18-2 Major Veins Ex. 14-4 ANS: Blood pressure <b>LAQ 4 (online)</b>
5	2/12 to 2/18	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	2/21 to 2/25	CH21: Immunity <b>Chapter 20/21 Quiz</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	2/26 to 3/04	CH22: Respiratory System <b>Chapter 22 Quiz</b>	<b>Lab practical 1</b>
8	3/04 to 3/10	<b>Exam Quiz 2 (online)</b> <b>Exam 2</b>	Ex. 22-1 Respiratory System Anatomy Ex. 23-3 pH Ventilation Construct a Lung Handout <b>LAQ 7 (online)</b>
	3/11 - 3/17	<b>SPRING BREAK</b>	<b>SPRING BREAK</b>
9	3/18 to 3/24	CH23: Digestive System CH24: Nutrition <b>Chapter 23/24 Quiz</b>	Ex. 24-1 Digestive System Anatomy Lactase Enzyme Activity Lab <b>LAQ 8 (online)</b>
10	3/25 to 3/31	CH25: The Urinary System	Ex. 25-1 Urinary System Anatomy Kidney Dissection <b>LAQ 9 (online)</b>
11	4/01 to 4/7	CH26: Fluid Balance <b>Chapter 25/26 Quiz</b>	Ex. 26-1 The Model Kidney Urinalysis Lab <b>LAQ 10 (online)</b>
12	4/8 to 4/14	CH27: Reproductive System <b>Exam Quiz 3 (online)</b> <b>Exam 3</b>	Ex. 27-1 & 27-2 Male and Female Reproductive Anatomy
13	4/15 to 4/21	CH28: Development <b>Chapter 27/28 Quiz</b>	Pig Dissection <b>LAQ 11 (online)</b>
14	4/22 to 4/28	CH29: Heredity  <b>Withdraw day (last day to drop the course with a grade of W)</b>	Ex. 28-1/28-2 Fertilization and Embryogenesis Ex. 28-3 Heredity Pig Uterus and Fetal Dissection <b>LAQ 12 (online)</b>
15	4/29 to 5/05	<b>Exam Quiz 4 (online)</b> <b>Exam 4</b>	Lab Practical Review <b>Comprehensive Final Exam</b>
16	5/06 to 5/10		<b>Lab practical 2</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 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](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:** 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 at 409-933-8919 or [klachney@com.edu](mailto:klachney@com.edu). The Office of Services for Students with Disabilities is located in the 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. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1<sup>st</sup> 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 2<sup>nd</sup> 8-week session is May 1. The last date to withdraw for the 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 and 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](mailto:deanofstudents@com.edu) or [communityresources@com.edu](mailto:communityresources@com.edu).