



BIOL-2402-103C3
Anatomy and Physiology II
Spring 2025

01/13/2025-05/08/2025 Lecture Monday, Wednesday 02:00PM - 04:50PM, Steam, Bldg. #22, Room 340
01/13/2025-05/08/25 Lab Monday, Wednesday 02:00PM - 04:50PM, Steam, Bldg. #22, Room 340

LECTURE

Monday 02:00PM - 04:50PM, Steam Bldg. #22, Room 340

LAB

Wednesday 02:00PM-04:50PM Steam Bldg. #22, Room 340

Instructor Information: Dr. James Mubiru. email: jmubiru@com.edu; office number: 409-933-8245; cell number: 346-490-2415.

Student hours and location:

Monday and Wednesday 8:00AM-01:00PM, Steam building, room S.325-20

Required Textbooks and Materials:

- Marieb, E.N. & Hoehn, K., 2019. Human Anatomy and Physiology, 11th ed. eText, Boston, MA; Pearson Education, Inc. ISBN-13: 9780134763415. (**eBook via VitalSource in Brightspace**)
- Amerman, E., 2022. Exploring Anatomy & Physiology in the Laboratory, 4th edition. Englewood, Colorado, Morton Publishing Company (customized for College of the Mainland) ISBN-13:9781640436206
- **Web camera** (either built into your computer or attachable) to take exams and practicals.

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.

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.

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. Exam dates are listed in the “what’s due when?” document.

Online Lecture Quizzes via Brightspace

There are 4 online lecture quizzes in Brightspace. Each quiz consists of 25 to 32 questions. You will have 60 minutes to answer the questions. Lecture quizzes will be assigned the week prior to an exam. Lecture quiz due dates are listed in the “what’s due when?” document.

Mastering A&P Assignments via Brightspace

You will have 10 online assignments in the Modified-Mastering A&P. Due dates are listed in the “what’s due when/?” document. **Required online component**, you will access via Brightspace from day one.

Online Lab Activity Quizzes (LAQ) via Brightspace

There are 12 online lab activities. Each activity reinforces the material that will appear on the 2 scheduled lab practicals. **You are responsible for watching all videos uploaded to the Lab Material area for a lab activity.** Lab quiz due dates are listed in the “what’s due when/?” document.

Lab Practicals

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

Weekly Discussions via Brightspace

There are 16 weekly discussions. These are not a required component of the course. Posts are worth 1 extra credit point added each week following the closure of the discussion to your overall final course grade. Posts can only be made during the week the discussion is open, no exceptions.

Bonus Points

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

Four diseases extra credit

Students will do an academic paper on all of the 4 diseases below:

1. Gluten intolerance
2. Celiac disease
3. Atherosclerosis
4. Type-2 diabetes

The research paper should be 3 pages single spaced. The last page should contain the materials cited. (2 pages of research content plus 1 page of references). The project is worth 10 points. The due date is 3/3/25. I will only accept hard copies. No electronic submissions are allowed.

Rubric

- | | |
|--|----------|
| 1. Definition of the 4 diseases | 4 points |
| 2. Non pharmaceutical management methods | 4 points |
| 3. Abiding by the page requirements | 1 point |
| 4. Reference page added | 1 point |

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 Mastering A&P Assignments (10)	200 (20 pts each)	20.0%
Online Lecture Quizzes (4)	100 (25 pts each)	10.0%
Lecture Exams (4)	340 (85 pts each)	34.0%
Comprehensive Final Exam	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 Exercises (10)	50 (5 points each)	5.0%
Lab Practicals (2)	120 (60 pts each)	12.0%
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 policy.
- 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: 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:

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.

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.		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 contributions of organs and systems to the maintenance of homeostasis.	CT	Urinalysis Lab
5. Identify causes and effects of homeostatic imbalances.	CS	Urinalysis Lab
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.	TW	Urinalysis Lab
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.	EQS	Urinalysis Lab
---	-----	----------------

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 Prof. Abernathy at sabernathy@com.edu or 409-933-8330.

Course Schedule Outline (SUBJECT TO CHANGE IF NEEDED)

WK	DAYS	FACE-to-FACE LECTURE	LAB On-Campus	Assignments
1	1/12 to 1/19	CH16: Endocrine System CH18: The Heart	Lab Safety Ex. 16-1 Endocrine System Anatomy Ex. 16-2 Endocrine Organ Histology Ex. 16-4 Endocrine mystery cases	LAQ 1 due 1/19 Syllabus Quiz due 1/19 Lab safety Quiz due 1/19 Mastering Asgn 1 due 1/19
2	1/20 to 1/26	CH18: The Heart CH19: Blood Vessels	Pig Heart Dissection Ex. 17-1 Anatomy of the Heart Ex 17-2 Cardiac Muscle Histology	LAQ 2 due 1/26 Mastering Asgn 2 due 1/26
3	1/27 to 2/2	CH19: Blood Vessels	Ex. 19-1 Heart Auscultation Ex. 19-5 ECG and Vernier EKG Handout	LAQ 3 (online) due 2/2 Mastering Asgn 3 DUE 2/2
4	2/3 to 2/9	CH17: The Blood	Ex. 18-1 Major Arteries Ex. 18-2 Major Veins Ex.18-3 Time to trace Ex. 19-3 Blood pressure	LAQ 4 due 2/9 Lecture Quiz 1 due 2/3 Exam 1 due 2/5 Mastering Asgn 4 due 2/9
5	2/10 to 2/16	CH20: Lymphatic System	Ex. 20-1 Blood Composition Ex. 20-2 ABO & Rh Blood Groups Ex. 20-4 Blood Donation	LAQ 5 due 2/16 Mastering Asgn 5 DUE 2/16
6	2/17 to 2/23	CH21: Immunity	Ex. 20-3 Murder Mystery Game Ex. 20-1 Lymphatic system Anatomy Ex. 21-2 Lymphatic Organ Histology Ex.21-3 The immune response	LAQ 6 due 2/23 Mastering Asgn 6 DUE 2/23
7	2/24 to 3/2	CH22: Respiratory System		Lab practical 1 due 2/26 Mastering Asgn 7 DUE 3/2
8	3/3 to 3/9	CH23: Digestive System	Ex. 22-1 Respiratory Anatomy Ex. 23-2 Pulmonary Volumes/Capacities Ex. 23-3 pH and Ventilation Construct a lung Handout	LAQ 7 due 3/9 Lecture Quiz 2 due 3/3 Exam 2 due 3/5
9	3/10 to 3/16	CH24: Nutrition	Ex. 24-1 Digestive System Anatomy Lactase Enzyme Activity Lab Ex. 24-4 Time to Trace	LAQ 8 due 3/16 Mastering Asgn 8 DUE 3/16

Spring Break 3/16/25-3/22/25				
10	3/24 to 3/30	CH25: The Urinary System	Ex. 25-1 Urinary system Anatomy	LAQ 9 due 3/30
11	3/31 to 4/6	CH26: Fluid Balance	Ex. 26-1 The Model Kidney Ex. 26.3 Time to Trace Urinalysis handout	LAQ 10 due 4/6 Mastering Asgn 9 DUE 4/6
12	4/7 to 4/13	CH27: Reproductive System	Ex. 27-1 Male Reproductive Ex. 27-2 Female Reproductive Pregnancy kit/Barrier lab handout	LAQ 11 due 4/13 Lecture Quiz 3 due 4/7 Exam 3 due 4/9
13	4/14 to 4/20	CH28: Development	PIG DISSECTION	LAQ 12 due 4/20 Mastering Asgn 10 DUE 4/20
14	4/21 to 4/27	CH29: Heredity	Ex. 28-1 Fertilization Ex. 28-2 Fetal Development Ex. 28-3 Heredity	
15	4/28 to 5/4			Lecture Quiz 4 due 4/28 Exam 4 due 4/30
16	5/5 to 5/8			Comprehensive Final Exam due 5/5 Lab practical 2 due 5/7

Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a 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 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 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: 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:

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 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 February 26. The last date to withdraw from the 16-week session is April 21. The last date to withdraw for the 2nd 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 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, 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 or communityresources@com.edu.

Nondiscrimination Statement:

The College District prohibits discrimination, including harassment, against any individual on the basis of 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 is a violation of College District policy.