



**BIOL2402.101CL**  
**Anatomy and Physiology II**  
**FALL 2021**

**LECTURE**

**Monday 09:30AM - 12:20PM, Steam Bldg. #22, Room 340**

**LAB**

**Wednesday 9:30AM-12:20PM Steam Bldg. #22, Room 340**

**Instructor Information:** Dr. James Mubiru

email: [jmubiru@com.edu](mailto:jmubiru@com.edu); office number: 409-933-8245; cell number: 346-208-0301.

**Student hours and location:**

Tuesday and Thursday 9:00AM-12:00PM, 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 BB**)
- Amerman, E., 2017. Exploring Anatomy & Physiology in the Laboratory, 3rd edition. Englewood, Colorado, Morton Publishing Company (customized for COM) ISBN-13: 978-1-61731-955-6 (**Lab Manual, hard copy only available via the college bookstore**)
- **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.

**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. Exam dates are listed in the "what's due when/?" document.

***Online Lecture Quizzes via BlackBoard***

There are 4 online lecture quizzes in BlackBoard (BB). 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 Blackboard**

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 BB from day one.

**Online Lab Activity Quizzes (LAQ) via BlackBoard**

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 BlackBoard**

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.

**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 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%
<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** 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.

<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 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.	<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, after discussing your concern with me, you continue to have questions, please contact Prof. Abernathy at [sabernathy@com.edu](mailto: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	8/23 to 8/29	CH16: Endocrine System CH18: The Heart	<b>Lab Safety</b> Ex. 16-1 Endocrine System Anatomy Ex. 16-2 Endocrine Organ Histology	<b>LAQ 1</b> due 8/29 Syllabus Quiz due 8/26 Lab safety Quiz due 8/26 <b>Mastering Asgn 1 due 8/29</b>
2	8/30 to 9/5	CH18: The Heart CH19: Blood Vessels	Pig Heart Dissection Ex. 17-1 Anatomy of the Heart	<b>LAQ 2</b> due 9/5 <b>Mastering Asgn 2 due 9/5</b>
3	9/6 to 9/12	<b>Labor Day on Monday</b> CH19: Blood Vessels	Ex. 19-5 ECG and Vernier EKG Handout Ex. 19-1 Heart Auscultation	<b>LAQ 3 (online)</b> due 9/12 <b>Mastering Asgn 3 DUE 9/12</b>
4	9/13 to 9/19	CH17: The Blood	Ex. 18-1 Major Arteries Ex. 18-2 Major Veins Ex. 14-4 ANS (Blood pressure)	<b>LAQ 4</b> due 9/19 <b>Exam 1 due 9/15</b> <b>Lecture Quiz 1 due 9/13</b> <b>Mastering Asgn 4 due 9/19</b>
5	9/20 to 9/26	CH20: Lymphatic System	Ex. 20-1 Formed Elements of Blood Differential WBC Count Ex. 20-2 ABO & Rh Blood Groups	<b>LAQ 5</b> due 9/26 <b>Mastering Asgn 5 DUE 9/26</b>
6	9/27 to 10/3	CH21: Immunity	Ex. 20-3 Murder Mystery Ex. 20-1 Lymphatic system Anatomy Ex. 21-2 Lymphatic Organ Histology	<b>LAQ 6</b> due 10/3 <b>Mastering Asgn 6 DUE 10/3</b>
7	10/4 to 10/10	CH22: Respiratory System		<b>Lab practical 1 due 10/6</b> <b>Mastering Asgn 7 DUE 10/10</b>
8	10/11 to 10/17	CH23: Digestive System	Ex. 22-1 Respiratory System Anatomy Ex. 23-2 Measuring Pulmonary Volumes/Capacities Construct a lung Handout	<b>LAQ 7</b> due 10/10 <b>Exam 2 due 10/13</b> <b>Lecture Quiz 2 due 10/11</b>
9	10/18 to 10/24	CH24: Nutrition	Ex. 24-1 Digestive System Anatomy Ex. 2-3 Enzymes and Chemical Reactions	<b>LAQ 8</b> due 10/24 <b>Mastering Asgn 8 DUE 10/24</b>
10	10/25 to 10/31	CH25: The Urinary System	Animal Dissection	<b>LAQ 9</b> due 10/31
11	11/1 to 11/7	CH26: Fluid Balance	Ex. 25-1 Urinary System Anatomy Kidney dissection	<b>LAQ 10</b> due 11/7 <b>Mastering Asgn 9 DUE 11/7</b>
12	11/8 to 11/14	CH27: Reproductive System	<b>Ex. 26-1</b> The Model Kidney Urinalysis Handout	<b>LAQ 11</b> due 11/14 Exam 3 due 11/10 <b>Lecture Quiz 3 due 11/8</b>
13	11/15 to 11/21	CH28: Development	Ex. 27-1 & 27-2 Male and Female Reproductive Anatomy	<b>LAQ 12</b> due 11/21 <b>Mastering Asgn 10 DUE 11/21</b>
14	11/22 to 11/28	CH29: Heredity	<b>Thanksgiving Day</b> Pig uterus and Developmental Models Pregnancy kit/Barrier lab handout	<b>Happy Thanksgiving!!!</b>

			Possible dissected pregnant animal demonstration	
15	11/29 to 12/5			Lecture Quiz 4 due 11/29 Exam 4 due 12/1
16	12/6 to 12/10			Comprehensive Final Exam due 12/6 Lab practical 2 due 12/8

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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://build.com.edu/uploads/sitecontent/files/student-services/Student\\_Handbook\\_2019-2020v5.pdf](https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.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.*  
[https://build.com.edu/uploads/sitecontent/files/student-services/Student\\_Handbook\\_2019-2020v5.pdf](https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf)

**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 Holly Bankston at 409-933-8520 or [hbankston@com.edu](mailto:hbankston@com.edu). The Office of Services for Students with Disabilities is located in the Student Success Center.

**Counseling Statement:** Any student needing counseling services is requested to please contact Holly Bankston in the student success center at 409-933-8520 or [hbankston@com.edu](mailto:hbankston@com.edu). Counseling services are available on campus in the student center for free and students can also email [counseling@com.edu](mailto:counseling@com.edu) to set up their appointment. Appointments are strongly encouraged; however, some concerns may be addressed on a walk-in basis.

**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 1<sup>st</sup> 8-week session is October 6. The last date to withdraw from the 16-week session is November 19. The last date to withdraw for the 2<sup>nd</sup> 8-week session is December 2.

**F<sub>N</sub> Grading:** The F<sub>N</sub> grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The F<sub>N</sub> 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 F<sub>N</sub> grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an F<sub>N</sub> 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.

**COVID-19 Statement:** All students, faculty, and staff are expected to familiarize themselves with materials and information contained on the College of the Mainland's Coronavirus Information site at [www.com.edu/coronavirus](http://www.com.edu/coronavirus). In compliance with Governor Abbott's May 18 Executive Order, face coverings/masks will no longer be required on COM campus. Protocols and college signage are being updated. We will no longer enforce any COM protocol that requires face coverings. We continue to encourage all members of the COM community to distance when possible, use hygiene measures, and get vaccinated to protect against COVID-19. Please visit [com.edu/coronavirus](http://com.edu/coronavirus) for future updates.