



BIOL 2402.102CL
Anatomy & Physiology II
Spring 2022

Lecture and Lab:

This course meets on campus Monday and Wednesday from 8 AM - 10:50 AM in STEAM 334.

Instructor Information: Dr. Mayer

Lmayer1@com.edu → E-mail is the best way to reach me. You **must** use your COM email address to communicate.

Phone: 409-933-8244

Student Hours: M/W 7:30 - 8 AM

Required Textbook and Materials:

- **Class Textbook:** You automatically purchased the eBook at the time of registration. You will gain access to the eBook (through VitalSource) in Blackboard when class begins.
Textbook Information: E.N. & Hoehn, K., 2019. Human Anatomy and Physiology, 11th edition, Boston, MA; Pearson Education, Inc. bundled with MODIFIED Mastering A&P on-line component. ISBN-13: 9780134763415.
- **Lab Manual:** (Purchase in the COM bookstore. Same manual as used in AP1 @ COM.)
Aerman, E., 2017. Exploring Anatomy & Physiology in the Laboratory, 3rd edition. Englewood, Colorado, Morton Publishing Company (customized for College of the Mainland) ISBN-13: 978-1-61731-955-6
MAKE SURE TO HAVE YOUR LABORATORY MANUAL every day
- **Purchase Scantrons** (Scantrons will be turned in to Dr. Mayer and distributed throughout the semester):
 - Purchase 5 (five) Scantrons: 881-E
 - Purchase 14 (fourteen) Scantrons: Quizstrip 815-E

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).

Course Requirements (See syllabus schedule for dates):

Lecture Exams & Comprehensive Final Exam

There are 4 lecture exams and 1 comprehensive final exam. Each exam may contain multiple-choice, fill-in-the-blank, matching, true-false, essay, and identification.

Lab Practicals:

Two Lab Practicals are scheduled. Lab Practicals contain material from the class laboratory component during a given section.

Quizzes:

You will have 14 quizzes in this course. More information will be provided in class at the first meeting.

Online Lab Activities with Online Lab Checkouts:

Most weeks you will review online Lab Activities and then complete associated Lab Checkouts. Lab Checkouts are questions concerning the material learned in the Lab Activity. Lab Activities and their associated Lab Checkouts are released in Blackboard during the appropriate week.

Participation:

You are expected to participate in all classroom activities. You may not always know the right answers, but you should make effort. Active participation increases your learning and critical thinking skills. Your quality of participation will be reflected in your participation score. A participation score is assessed each day during Week 2-13. Maximum score per day is 3 points. Any absence will result in an automatic loss of daily points.

Professionalism:

Your participation in this class in a professional manner is required. Examples of behaviors which detract from this component are: emails sent to the professor written as if sending a text message rather than a proper email, assignments turned in late or with difficulty due to waiting till last minute, arriving late to class, etc. Refer to Blackboard's "Syllabus & Schedule" tab, then click on "Professionalism" folder in Blackboard for more information.

Anything turned-in without your name / student ID# is susceptible to not being graded and resulting in a grade of zero. *Double check all work before submitting*****

Determination of Course Grade/Detailed Grading Formula:

Course Assessment	Total Points	Percentage of Course
LECTURE PORTION	700	70.0%
Lecture Exams (4)	320 (80 points ea.)	32.0 %
Final Exam	100	10.0 %
Quizzes (14)	182 (13 points ea.)	18.2 %
Participation	78	7.8 %
Professionalism	20	2.0 %
LABORATORY PORTION	300	30.0%
Lab Checkouts Online (12)	120 (10 points ea.)	12.0%
Lab Practicals (2)	180 (90 points ea.)	18.0%
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** A 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.

Make-Up Policy:

Lecture Exams and Comprehensive Final Exams:

Test dates are listed in the schedule found in this syllabus. **If you miss the exam date expect to receive a grade of zero (0).** Any variations are at the professor's discretion.

Lab Practicals: Lab practicals are listed in the schedule found in this syllabus. **If you miss the lab practical expect to receive a grade of zero (0).** Any variations are at the professor's discretion.

Lab Checkouts (Online): You have adequate time to complete. No make-ups permitted.

Quiz: At the end of the semester, the lowest quiz grade is dropped and the highest will count double. For this reason, there are no quiz make-ups permitted.

Participation:

Any absence will result in an automatic loss of daily points.

Attendance Policy:

- If you reach (3) or more marks of absence you should expect to be dropped from the course.
- **Tardiness:**
 - Class begins at **8 AM**.
 - **I will begin** instruction, an assessment, an exam, a quiz, a bonus opportunity, or any activity at **8 AM**.
 - If you are not present in class **by 8:20 AM** you **will** be marked **late**.
 - Tardiness may result in an **absence** if not present when attendance is taken and may prevent you from participation in lab experiments, examinations, or lead to dismissal from class.
 - **If you are late and a quiz, exam, or activity has been administered, time will not be extended.** The assignment will be due at the end of the allotted time as it is for everyone else. Do your best not to eat into your own time.

Communicating with your professor: ALL electronic communication with the professor 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.		Diagram questions on Exam 1, 2, 3, and 4
2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.		Exam 1 Essay Questions
3. Describe the interdependency and interactions of the systems.		Group Case Study Activity
4. Explain contributions of organs and systems to the maintenance of homeostasis.	CT	Group Case Study Activity
5. Identify causes and effects of homeostatic imbalances.		Group Case Study Activity
6. Describe modern technology and tools used to study anatomy and physiology.		Muscle Fatigue Lab
7. Apply appropriate safety and ethical standards.		Lab Safety Quiz
8. Locate and identify anatomical structures.		Lab Practical 2
9. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations.		Lab Practical 3
10. Work collaboratively to perform experiments.	TW	Disarticulated Skeleton Race Assignment
11. Demonstrate the steps involved in the scientific method.		Bloody Cytology Exercise 4-3

12. Communicate results of scientific investigations, analyze data and formulate conclusions.	CS	Forensic Lab
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	Forensic 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.

Plagiarism: Plagiarism is a serious offense. Plagiarism includes paraphrasing someone else's words without giving proper citation, copying directly from a website and pasting it into your paper, using someone else's words without quotation marks. Any assignment containing any plagiarized material will receive a **grade of zero** and the student will be referred to the Office of Student Conduct for the appropriate discipline action. In addition, I am providing you with an internet link to a video on Plagiarism:

<http://en.writecheck.com/ways-to-avoid-plagiarism/>

Classroom Conduct Policy: College of the Mainland requires that students enrolled at COM be familiar with the Standards of Student Conduct, which can be found in the on-line Student Handbook. <http://www.com.edu/student-services/student-handbook.php>. Students are expected to be familiar with and abide by the Student Code of Conduct. Any violations of the Code of Conduct will result in a referral to the Dean of Students and may result in dismissal from this class.

- o **Video recording of the course is prohibited and any evidence of such will be considered for dismissal from the class.**
- o You are responsible for any content you miss when you leave class for any reason.

Concerns/Questions Statement: 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 Sheena Abernathy, Chair of the Science Department, at 409-933-8330 or by email: sabernathy@com.edu

Course outline: (Tentative Schedule)

WEEK #	SUBJECT	LABORATORY	Monday in Class	Wednesday in Class	DUE Friday Online @ Noon
1. Jan. 19 - Jan. 22	<u>Ch. 16</u> Endocrine	Lab Safety Ex. 16-1 Endocrine Glands Ex. 16-2 Endocrine Histology			Checkout: Lab Activity 1
2. Jan. 23 - Jan. 29	<u>Ch. 18</u> Heart	Ex. 17-1 Heart Anatomy Pig Heart Dissection	Quiz 1	Quiz 2	Checkout: Lab Activity 2
3. Jan. 30 - Feb. 5	<u>Ch. 19</u> Blood Vessels	Ex. 19-5 ECG / Vernier EKG Handout Ex. 19-1 (Auscultation) Ex. 19-2 Vascular Examination		Quiz 3	Checkout: Lab Activity 3
4. Feb. 6 - Feb. 12	<u>Ch. 17</u> Blood	Ex. 18-1 Major Arteries Ex. 18-2 Major Veins Ex. 18-5 Clinical Applications Ex. 14-4 ANS (Blood Pressure)	Exam #1 (Chapters 16, 18, 19)	Quiz 4	Checkout: Lab Activity 4
5. Feb. 13 - Feb. 19	<u>Ch. 20</u> Lymphatic	Ex. 20-1 Formed Elements of Blood Ex. 20-2 ABO and Rh Blood Groups		Quiz 5	Checkout: Lab Activity 5
6. Feb. 20 - Feb. 26	<u>Ch. 21</u> Immunity	Ex. 20-3 Murder Mystery Ex. 21-1 Lymphatic System Anatomy Ex. 21-2 Lymphatic Organ Histology		Quiz 6	Checkout: Lab Activity 6
7. Feb. 27 – Mar. 5	<u>Ch. 22</u> Respiratory			Quiz 7 Lab Practical #1 (Lab Material WEEK 1-6)	NO CHECKOUT THIS WEEK
8. Mar. 6 - Mar. 12	<u>Ch. 23</u> Digestive System	Ex. 22-1 Respiratory Anatomy Ex. 23-2 Measuring Pulmonary Volumes and Capacities Construct a Lung Handout	Exam #2 (Chapters 17,20, 21,22)	Quiz 8	Checkout: Lab Activity 7
Mar. 13 - Mar. 19		SPRING BREAK			

9. Mar. 20 – Mar. 26	<u>Ch. 24</u> Nutrition	Ex. 24-1 Digestive System Anatomy Lactic Enzyme Assay Ex. 2-3 Enzymes and Chemical Reactions (Demo)		Quiz 9	Checkout: Lab Activity 8
10. Mar. 27 - Apr. 2	<u>Ch. 25</u> Urinary	PIG Dissection		Quiz 10	NO CHECKOUT THIS WEEK
11. Apr. 3 - Apr. 9	<u>Ch. 26</u> Fluid Balance	Exercise 25-1 Urinary System Anatomy Kidney Dissection		Quiz 11	Lab Checkout 9
12. Apr. 10 - Apr. 16	<u>Ch. 27</u> Reproductive	Exercise 26-1 Model Kidney Urinalysis Handout	Exam #3 (Chapters 23, 24, 25, 26)	Quiz 12	Checkout: Lab Activity 10
13. Apr. 17 - Apr. 23	<u>Ch. 28</u> Development	Exercise 27-1 Male Repro Anatomy Exercise 27-2 Female Repro Anatomy		Quiz 13	Lab Checkout 11
14. Apr. 24 - Apr. 30	<u>Ch. 29</u> Heredity	Pig Uterus Dissection Developmental Models Pregnancy Kit / Barrier Handout		Quiz 14	Lab Checkout 12
15. May 1 - May 7			Exam 4 (Chapters 27, 28, 29)	Lab Practical 2 (Lab Material Week 8-14)	
16. May 8 - May 13			Comp Final Exam	X	

Exam Coverage Schedule:

- **Exam 1** covers: Ch. 16 (Endocrine), Ch. 18 (Heart), and Ch. 19 (Blood Vessels)
- **Exam 2** covers: Ch. 17 (Blood), Ch. 20 (Lymphatic), Ch. 21 (Immunity), and Ch. 22 (Respiratory)
- **Exam 3** covers: Ch. 23 (Digestive), Ch. 24 (Nutrition + Metabolism), Ch. 25 (Urinary), Ch. 26 (Fluid Balance)
- **Exam 4** covers: Ch. 27 (Reproductive), Ch. 28 (Development), Ch. 29 (Heredity)
- **Final Exam** covers: Ch. 16 through Ch. 29
- **Lab Practical 1** covers: Lab material from Week 1-6
- **Lab Practical 2** covers: Lab material from Week 8-14

I reserve the right to make changes to the schedule/syllabus as necessary. Any changes or updates will be announced in class and/or through Blackboard.

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. *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

Academic Success & Support Services: College of the Mainland is committed to providing students the necessary support and tools for success in their college career. 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. The Office of Services for Students with Disabilities is located in the Student Success Center.

Counseling Statement: Any student that is needing counseling services is requested to please contact Holly Bankston in the student success center at 409-933-8520 or hbankston@com.edu. Counseling services are available on campus in the student center for free and students can also email counseling@com.edu to setup 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.

**if a student prefers a hard copy of the textbook, a used or new book (10th or 11th edition) can be purchased independently. You will still need to keep the digital textbook through VitalSource in Blackboard in order to complete assignments online.*

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 professor and consult an advisor. Students are only permitted to withdraw six times during their college career by State law. **The last day to withdraw from this course is April 25th.** After this date, whatever grade you have earned will become your permanent grade.

FN Grading: The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the professor. 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 Dr. Mayer's discretion.

Early Alert Program: The Student Success Center at College of the Mainland has implemented an Early Alert Program because we value student success and retention. If you are referred to the Early Alert Program for poor attendance or performance you will be contacted by the Student Success Center who will schedule a meeting with you to see what assistance they can offer.

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. In compliance with Governor Abbott's 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 for future updates.