



BIOL 2402.102CL
Anatomy & Physiology II
Spring 2023
Monday & Wednesday 8-10:50 AM

Instructor Information: Dr. Mayer, Lmayer1@com.edu, 409-933-8244


Student Hours and location: Wednesday appts. 10:50 - 11:20 AM in 334

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.)
Amerman, 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 6 (six) 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.
-  **Notice:** If you make an A on every lecture exam, you may elect to skip the final exam. In that event, your final exam score will be an average of your four lecture exams scores, with an adjustment for proper point conversion. If you make an A on every lecture exam and decide to take the final exam also, whatever score you make on the final exam will stand.
- **Lab Practicals:**
Three Lab Practicals are scheduled. Lab Practicals contain material from the assigned class laboratory readings, experiments, and assignments during a given section.
- **Quizzes:**
You will have 14 quizzes in this course.
- **Participation:**
You are expected to enthusiastically participate in all activities. Active participation increases learning and critical thinking. Your quality of participation will be reflected in a participation score released at the end of the semester. Your level of participation is observed and noted throughout the semester. Your end-of-semester participation score is based on the criteria outlined in the rubric which will be provided to you.
- **Professionalism:**
Professionalism in this class is required. Examples of behaviors which detract from this component are available in the Brightspace "Syllabus & Schedule" tab, followed by a click on the "Professionalism" folder found therein.

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 Exam (x4)	320 (80 points ea.)	32.0 %
Final Exam	100	10.0 %
Quiz (x14)	210 (15 points ea.)	21.0 %
Participation	50	5.0 %
Professionalism	20	2.0 %
LABORATORY PORTION	300	30.0%
Lab Practical (x3)	300 (100 points ea.)	30.0%
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.

Late Work, Make-Up, and Extra-Credit 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.
- **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 provided.

Attendance Policy:

- **I will begin** class (including administering any assessment) at **8 AM**.
- If you are not present in class **by 8:20 AM** you will be marked **late**.
- **Attendance will be taken at any point between 8:20 AM and 10:50 AM.** If you are not present when attendance is taken you will be marked **absent**.
- **If you are late and an assessment 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.
- **If you miss four (4) or more classes you should expect to be dropped from the class at any 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 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/>
- Students are expected to be familiar with and abide by the Student Code of Conduct: <http://www.com.edu/student-services/student-handbook.php>. 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.
- Video recording of the course is prohibited and any evidence of such will be considered for dismissal from the class.

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 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
1. Jan. 15 - Jan. 21	<u>Ch. 16</u> Endocrine	Lab Safety Ex. 16-1 Endocrine Glands Ex. 16-2 Endocrine Histology	LABOR DAY NO CLASS	
2. Jan. 22 - Jan. 28	<u>Ch. 18</u> Heart	Ex. 17-1 Heart Anatomy Ex. 17-2 Cardiac Muscle Histology	Quiz 1	Quiz 2
3. Jan. 29 - Feb. 4	<u>Ch. 19</u> Blood Vessels	Ex. 19-1 (Auscultation) Ex. 19-5 ECG / Vernier EKG Handout		Quiz 3
4. Feb. 5 - Feb. 11	<u>Ch. 17</u> Blood	Ex. 18-1 Major Arteries Ex. 18-2 Major Veins (Ex. 18-3 Time to Trace) Ex. 18-5 Clinical Applications Ex. 19-3 Blood Pressure	Exam #1 (Chapters 16, 18, 19)	Quiz 4

5. Feb. 12 - Feb. 18	<u>Ch. 20</u> Lymphatic	Ex. 20-1 Formed Elements of Blood Ex. 20-2 ABO and Rh Blood Groups Exercise 20-4 Blood Donation		Quiz 5
6. Feb. 19 - Feb. 25	<u>Ch. 21</u> Immunity	Ex. 20-3 Murder Mystery Ex. 21-1 Lymphatic System Anatomy Ex. 21-2 Lymphatic Organ Histology Ex. 21-3 The Immune Response		Quiz 6
7. Feb. 26 – Mar. 4	<u>Ch. 22</u> Respiratory			Quiz 7 Lab Practical #1 (Lab Material WEEK 1-6)
8. Mar. 5 - Mar. 11	<u>Ch. 23</u> Digestive System	Ex. 22-1 Respiratory Anatomy (Ex. 23-2 Measuring Pulmonary Volumes and Capacities) Ex. 23-3 pH and Ventilation Construct a Lung Handout	Exam #2 (Chapters 17,20, 21,22)	Quiz 8
Mar. 12 - Mar. 18		SPRING BREAK		
9. Mar. 19 – Mar. 25	<u>Ch. 24</u> Nutrition	Ex. 24-1 Digestive System Anatomy (Lactic Enzyme Activity) Ex. 24-4 Time to Trace		Quiz 9
10. Mar. 26 - Apr. 1	<u>Ch. 25</u> Urinary	Ex. 25-1 Urinary System Anatomy		Quiz 10
11. Apr. 2 - Apr. 8	<u>Ch. 26</u> Fluid Balance	Exercise 26-1 Model Kidney Ex. 26-3 Time to Trace Urinalysis Handout		Quiz 11
12. Apr. 9 - Apr. 15	<u>Ch. 27</u> Reproductive	Exercise 27-1 Male Repro Anatomy Exercise 27-2 Female Repro Anatomy	Exam #3 (Chapters 23, 24, 25, 26)	Quiz 12
13. Apr. 16 - Apr. 22	<u>Ch. 28</u> Development	Pig Dissection	Lab Practical 2 (Lab Material Week 8-12)	Quiz 13
14. Apr. 23 - Apr. 29	<u>Ch. 29</u> Heredity	Exercise 28-1 Fertilization and Implantation		Quiz 14

		Exercise 28-2 Embryogenesis, Fetal Development, Fetal Cardiovascular Anatomy Ex. 28-3 Heredity		
15. Apr. 30 - May 6			Exam 4 (Chapters 27, 28, 29)	Lab Practical 3 (Lab Material Week 13-14)
16. May 7 - May 12			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 8-12
- **Lab Practical 3** covers: Lab material from Week 13 and 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 Brightspace.

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_2022-2023_v4.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 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 Kimberly Lachney at 409-933-8919 or klachney@com.edu. The Office of Services for Students with Disabilities is located in the 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.

**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 24th.** 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. 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.