



BIOL-2402-223CL
Anatomy and Physiology II
Spring 2023

Tue & Thu, Lecture - Lab 6:00-8:50pm (STE-334)

Instructor Information: Alex Peniche, Ph.D., apenichetrujill@com.edu, 409-933-8244
(Administrative Assistant Jenn Denison)

Student (Office) hours and location:

Office Hours: Before class or by appointment

Location: STE-334

Required Textbook/Materials:

Textbook: Marieb, E.N. & Hoehn, K., 2019. *Human Anatomy and Physiology, 11th edition* (eText), Boston, MA; Pearson Education, Inc. Publisher bundled with MODIFIED Mastering A&P on-line component. ISBN13: 978-0-13-458099-9. This e-book and the Modified Mastering A&P are purchased at the time of registration through VitalSource and you will gain access to them in Blackboard on first day of class.

Lab manual: 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. You will have to buy this; it is **not** part of registration payments.

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 prerequisites: BIOL 2401 with a grade of "C" or better.

Course requirements:

Lecture Exams

Counts for 75% of the final course grade. Five (5) exams (15% each) will be administered. Exams will consist of a combination of multiple choice, short answer, and essay questions. The material covered by each exam is listed on the syllabus. To prepare for an exam, students must read, understand, and master all chapters to be examined. It is very important that students understand the terms, complete exercises at the end of each chapter. Some of them will be used as exam questions.

No phones or other electronic or communication equipment are allowed during exams. In the event that examinations are moved into on-line format due to changes in COVID19 guidelines, Respondus lockdown browser will be required.

Laboratory and laboratory reports

Grade is earned from individual laboratory assignment using D2L Brightspace on dates indicated in the section “Course outline”. Laboratory assignments consist of a combination of identify, multiple choice, and short answer based on laboratory manual. The material covered by assignment is listed on the section “Course outline”. Failure to submit Laboratory assignment in D2L Brightspace will be scored as a zero (0) toward the laboratory grade average. There will be no make-ups for missed laboratories or laboratory reports.

Quizzes (bonus Points)

Here an opportunity for you to earn bonus points. Bonus points are not part of the course requirements so any bonus points earned will help your grade and any bonus points no taken will not affect your grade negatively.

No make-up opportunity will be allowed for Quizzes once the due date has passed unless you can provide documentation for an emergency that keeps them away from taking the quiz that is approved by me.

Presentations (bonus Points)

Here another opportunity for you to earn bonus points. Bonus points are not part of the course requirements so any bonus points earned will help your grade and any bonus points no taken will not affect your grade negatively. Presentation requires that students survey the scientific literature (peer reviewed journals) related to the “clinical applications” section from book chapters 16-29. Students should submit me via email the subject proposed for presentation. Presentation dates will be organized according to assignment arrival. The presentation should be planned for 15 min (~10 slides), plus 5 min dedicated for discussion. All presentations should be made on PowerPoint file format. Please do not use readymade presentation material available on the internet. Student should present his/her understanding of the subject, his concepts and perception of the scientific matter analyzed by the paper.

Determination of Course Grade/Detailed Grading Formula: All grades matters!!. Keep track of your class grades as reflection of your knowledge, skills, or both, rather than effort. Evaluation will be based on the following and weighted as indicated:

Lecture: Counts for 75% of the final course grade. Five (5) exams (15% each) will be administered

Laboratory: Counts for 25% of the final course grade.

Grading Scale:

A – A weight of the points earned for course assessments that equals 90% or more

B – A weight of the points earned for course assessments that equals between 80% and 89% inclusive

C – A weight of the points earned for course assessments that equals between 70% and 79% inclusive

D – A weight of the points earned for course assessments that equals between 60% and 69% inclusive

F – A weight of the points earned for course assessments that equals 59% or less, or for lab assessment that fails to meet either the lab science policy or the lab attendance policy.

FN – A weight of the points earned for course assessments that equals 59% or less due to poor participation.

I – An incomplete may be assigned at the discretion of the instructor in accordance with the college policy.

W – A withdrawal may be assigned in accordance with college policy.

Academic Dishonesty: Academic dishonesty includes activities and behaviors such as cheating on tests, collusion, and plagiarism (the practice of taking someone else's work or ideas and passing them off as one's own). Disciplinary actions will be taken for students who exhibit disorderly conduct, cheat on exams, submit plagiarized work, or are involved in collusion (helping others cheat and/or plagiarize). The consequences for violating the academic integrity include one or more of a zero score for the test/assignment, “F” grade in the course, and withdrawal from the class. The student may also be referred to the Vice President of Student Success and Conduct for further disciplinary action including dismissal from the college.

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, the Science Department Chair, at 409-933-8330 or sabernathy@com.edu.

Course outline: This is a tentative schedule of lecture and laboratory activities and may be subject to change as the course proceeds. Students will be notified in class and posted/uploaded in the Blackboard. It is the student’s responsibility to check the Blackboard for amendments or updates to the syllabus.

Please match the following:

Week	Date	Topic	Laboratory - Topic	Due date
1	1/17, 19	Ch16: Endocrine System	Lab Safety, Ex. 16-1 Endocrine Glands; Ex. 16-2 Endocrine Organ Histology; Ex. 16-4 (Endocrine “Mystery Cases”)	1/22
2	1/24, 26	Ch18: The Cardiovascular System: The Heart	Ex. 17-1 Anatomy of the Heart; Ex. 17-2 Cardiac Muscle Histology	1/29
3	1/31, 2/2	Ch19: The Cardiovascular System: Blood Vessels	Ex. 19-1 Heart Auscultation; Ex. 19-5 ECG & Vernier EKG Handout	2/5
4	2/7	Ch19: The Cardiovascular System: Blood Vessels	Ex. 18-1 Major Arteries of the Body & Ex.18-2 Major Veins of the Body; Ex. 18-3 Time to Trace!; Ex. 18-5 Clinical Applications & Ex.19-3 Blood Pressure	2/12
	2/9	Exam 1 (Ch 16, 18, 19)		2/9
5	2/14, 16	Ch17: Blood Ch 21: The Immune System: Innate and Adaptive Body Defenses	Ex. 20-1 Formed Elements of Blood; Ex. 20-2 ABO & Rh Blood Groups; Ex. 20-4 Blood Donation	2/19

6	2/21, 23	Ch 21: The Immune System: Innate and Adaptive Body Defenses Ch 20: The Lymphatic System and Lymphoid Organs and Tissues	Ex. 20-3 Murder Mystery Game;	2/26
7	2/28	Ch 20: The Lymphatic System and Lymphoid Organs and Tissues	Ex. 21-1 Lymphatic System Anatomy; Ex. 21-2 Lymphatic Organ Histology; Ex. 21-3 The Immune Response	3/5
	3/2	Exam 2 (Ch 17, 20, 21)		3/2
8	3/7, 9	Ch 22: The Respiratory System	Ex. 22-1 Respiratory Anatomy; Ex 23-2 Pulmonary Volumes & Capacities; Ex. 23-3 pH and Ventilation; Construct a Lung Handout	3/19
9	3/12-18	Spring Break, College closed		
10	3/21, 23	Ch23: The Digestive System Ch24: Nutrition, Metabolism, and Energy Balance	Ex 24-1 Digestive System Anatomy; Lactase Enzyme Activity Lab;	3/26
11	3/28	Ch24: Nutrition, Metabolism, and Energy Balance	Ex. 24-4 Time to Trace!	4/2
	3/30	Exam 3 (Ch 22,23,24)		3/30
12	4/4, 6	Ch 25: The Urinary System	Ex 25-1 Urinary System Anatomy Kidney Dissection	4/9
13	4/11, 13	Ch 26: Fluid, Electrolyte, and Acid-Base Balance	Ex 26-1 The Model Kidney Urinalysis Handout	4/16
14	4/18	Ch 26: Fluid, Electrolyte, and Acid-Base Balance	Ex. 26-3 Time to Trace!; Pig Dissection	4/23
	4/20	Exam 4 (Ch 25,26)		4/20
15	4/25, 27	Ch 27: Reproductive System	Ex. 27-1 Male Reproductive Anatomy; Ex. 27-2 Female Reproductive Anatomy	4/30
16	5/2, 4	Ch 28: Pregnancy and Human Development	Ex. 28-1 Fertilization and Implantation Ex. 28-2 Embryogenesis, Fetal Development and Fetal Cardiovascular Anatomy; Ex. 28-3 Heredity	5/7
17	5/9	Exam 5 (Ch 27-28)		5/9

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 [Student Handbook 2022-2023 v4.pdf \(com.edu\)](#). *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 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.

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 March 1. The last date to withdraw from the 16-week session is April 24. The last date to withdraw for the 2nd 8-week session is May 3.

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.