



BIOL2402.221HY
Anatomy and Physiology II
Spring 2021

LECTURE

Live Lecture via Collaborate in BlackBoard per the schedule
Live attendance is not required, archived recording will be available

LAB

BIOL2402.221HY groups meet every other Monday starting week 2 from 6-9pm in MS143
Labs are by Group A & B, will meet every other week (you will be notified of your group via email)

SI Sessions will be determined after the course begins

Instructor Information: Dr. Jantz
E: kjantz@com.edu; O: 409-933-8255; GroupMe:



Student hours: Mon 5-6pm, Tues 11am-1pm, and Wed 1-3pm & 4-6:30pm or by appointment

Required Textbooks and Materials:

- Marieb, E.N. & Hoehn, K., 2019. Human Anatomy and Physiology, 11th ed. Boston, MA; Pearson Education, Inc. (**eBook via VitalSource already loaded in BB = NO PURCHASE REQUIRED**)
- 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**)
- **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. The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics).

Prerequisites: TSI Reading 351 or IRW 0320 and BIOL 2401 with a grade of "C" or better.

Course requirements:

Lecture Exams & Comprehensive Final Exam via BlackBoard

There are 4 online exams and 1 online comprehensive final exam (CFE). **Exams are administered in BlackBoard (BB) using Respondus Lockdown Browser with Monitor.** **Your computer must have a built-in webcam or you can purchase an attachable webcam.** 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, will be open for 7 days (**Wednesday midnight to Tuesday 11:59pm**).

Online Lecture Quizzes via BlackBoard

There are 4 online lecture quizzes in BlackBoard (BB). Each quiz consists of 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

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.

Lab Activity and 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.** **You MUST log into BB to complete the quizzes but are not required to use Respondus.** Lab quiz due dates are listed in the “what’s due when/?” document.

Lab Practicals via BlackBoard

There will be 2 lab practicals **administered via BlackBoard using Respondus Lockdown Browser with Monitor.** **Your computer must have a built-in webcam or you can purchase an attachable webcam.** If you have a Google Chrome Book, you will need to make arrangement to take exams on a different device as they are not compatible with Respondus. Practical dates are listed in the “what’s due when/?” document.

Weekly Discussions via BlackBoard

There will be 16 weekly discussions. These are not a required component of the course but are the only way to earn extra credit points. Each post will be worth 1 extra credit point added to your overall final course grade.

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. **Live attendance or REVIEW of archived chat is required to earn bonus points!**

Determination of Course Grade/Detailed Grading Formula:

| Course Assessment | Total Points | Percentage of Course |
|----------------------------------|---------------------|-----------------------------|
| LECTURE PORTION | 700 | 70.0% |
| Syllabus Quiz | 5 points | 0.5% |
| Respondus Quiz | 5 points | 0.5% |
| Mastering A&P Assignments (10) | 200 (20 pts each) | 20.0% |
| Lecture Quizzes (4) | 80 (20 pts each) | 8.0% |
| Lecture Exams (4) | 360 (90 pts each) | 36.0% |
| Comprehensive Final Exam | 50 points | 5.0% |
| LAB PORTION | 300 | 30.0% |
| Lab Safety Quiz | 10 points | 1.0% |
| Online Lab Activity Quizzes (12) | 120 (10 pts each) | 12.0% |
| Online Lab Practicals (2) | 170 (85 pts each) | 17.0% |
| 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: Exams are administered via BlackBoard and are open for 7 days. Make-ups are allowed at the discretion of the instructor.

LAB PRACTICALS: Administered via BlackBoard and are open for 7 days. 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 two 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 | Exams 1-3 |
| 5. Identify causes and effects of homeostatic imbalances. | CS | Exams 1-4 |
| 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 | ABO Murder Mystery |
| 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 | Lab Practical 1 |

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

Course Schedule Outline (SUBJECT TO CHANGE IF NEEDED)

| WK | DAYS | LECTURE Online | LAB On-Campus | LAB Online |
|----|--------------|---|---|--|
| 1 | 1/19 to 1/24 | CH16: Endocrine System Mastering Asgn 1 DUE | No lab this week | Ex. 16-1 System Anatomy Ex. 16-2 Endocrine Organ Histology LAQ 1 (online) |
| 2 | 1/25 to 1/31 | CH18: The Heart Mastering Asgn 2 DUE | Group A and B (1.5 hr each) Ex. 16-1 & 16-2 Endocrine System | Ex. 17-1 – Anatomy of the Heart LAQ 2 (online) |
| 3 | 2/1 to 2/7 | CH19: Blood Vessels Mastering Asgn 3 DUE | Group A Lab Safety Pig Heart Dissection Ex. 17-1 Anatomy of the Heart | Lab Safety Quiz Ex. 19-1 Heart Auscultation Ex. 19-5 ECG LAQ 3 (online) |
| 4 | 2/8 to 2/14 | CH17: The Blood Lecture Quiz 1 (online) Exam 1 (online) Mastering Asgn 4 DUE | Group B Lab Safety Pig Heart Dissection Ex. 17-1 Anatomy of the Heart | Ex. 18-1 Major Arteries Ex. 18-2 Major Veins LAQ 4 (online) |
| 5 | 2/15 to 2/21 | CH20: Lymphatic System Mastering Asgn 5 DUE | Group A Ex. 19-5 ECG Ex. 18-1 & 18-2 Blood Vessels | Ex. 14-4 ANS: Blood pressure Ex. 18-5 Pulse Palpation LAQ 5 (online) |
| 6 | 2/22 to 2/28 | CH21: Immunity Mastering Asgn 6 DUE | Group B Ex. 19-5 ECG Ex. 18-1 & 18-2 Blood Vessels | Ex. 20-1 Formed Elements of Blood Ex. 20-2 ABO & Rh Blood Groups Ex. 21-2 Lymphatic Organ Histology LAQ 6 (online) |
| 7 | 3/1 to 3/7 | CH22: Respiratory System Mastering Asgn 7 DUE | Group A Ex. 20-1 Formed Elements of Blood Ex. 20-2 ABO & Rh Blood Groups | Ex. 22-1 Respiratory System Anatomy Ex. 23-2 Measuring Pulmonary Volumes/Capacities LAQ 7 (online) |
| 8 | 3/8 to 3/14 | CH23: Digestive System Lecture Quiz 2 (online) Exam 2 (online) | Group B Ex. 20-1 Formed Elements of Blood Ex. 20-2 ABO & Rh Blood Groups | Lab practical 1 (online) |
| | 3/15-21 | Spring Break | Spring Break | Spring Break |
| 9 | 3/22 to 3/28 | CH24: Nutrition Mastering Asgn 8 DUE | Group A Ex. 2-3 Enzyme & Chemical Reactions | Ex. 24-1 Digestive System Anatomy Ex. 2-3 Enzymes and Chemical Reactions LAQ 8 (online) |
| 10 | 3/29 to 4/4 | CH25: The Urinary System | Group B Ex. 2-3 Enzyme & Chemical Reactions | Ex. 25-1 Urinary System Anatomy LAQ 9 (online) |
| 11 | 4/5 to 4/11 | CH26: Fluid Balance Mastering Asgn 9 DUE | Group A Ex. 25-1 Urinary System Anatomy Ex. 26-1 The Model Kidney | Ex. 26-1 The Model Kidney LAQ 10 (online) |
| 12 | 4/12 to 4/18 | CH27: Reproductive System Lecture Quiz 3 (online) Exam 3 (online) | Group B Ex. 25-1 Urinary System Anatomy Ex. 26-1 The Model Kidney | Ex. 27-1 & 27-2 Male and Female Reproductive Anatomy LAQ 11 (online) |
| 13 | 4/19 to 4/25 | CH28: Development Mastering Asgn 10 DUE | Group A Cat and Pig Uterine Horn Dissection | Ex. 28-1 Fertilization & Implantation Embryogenesis & Fetal Development LAQ 12 (online) |
| 14 | 4/26 to 5/2 | CH29: Heredity | Group B Cat and Pig Uterine Horn Dissection | |
| 15 | 5/3 to 5/9 | Lecture Quiz 4 (online) Exam 4 (online) | No lab this week | Lab practical 2 (online) |
| 16 | 5/10 to 5/12 | Comprehensive Final Exam (online) | No lab this week | |

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 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. 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. Counseling services are available on campus in the student center for free and students can also email 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 is **April 26, 2021**.

F_N Grading: The F_N grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The F_N 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_N grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an F_N 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. Students are required to watch a training [video](#), complete the [self-screening](#), and acknowledge the safety guidance at: www.com.edu/selfscreen. In addition, students, faculty, and staff must perform a [self-screening](#) prior to each campus visit. Finally, students, faculty, or staff who have had symptoms of COVID-19, received a positive test for COVID-19, or have had close contact with an individual infected with COVID-19 must complete the [self-report tool](#).