BIOL 2102
Anatomy & Physiology II Lab
Fall 2026

LAMAR INSTITUTE OF TECHNOLOGY

CREDIT
1 Semester Credit Hour (2 hours lab)

MODE OF INSTRUCTION
Online

PREREQUISITE/CO-REQUISITE:
Prerequisite: Biol 2101 and 2301
Passed the Reading/Writing Sections of TSI or any other accepted test
Co-requisite Biol 2302

COURSE DESCRIPTION
The lab provides a virtual 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).

COURSE OBJECTIVES
Upon completion of this course, the student will be able to:

1. Use anatomical terminology to identify and describe the locations of major organs of each system covered.
2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.
3. Describe the interdependency and interactions of the systems.
4. Explain the contributions of organs and systems to the maintenance of homeostasis.
5. Identify causes and effects of homeostatic imbalances.
6. Describe modern technology and tools used to study anatomy and physiology.

CORE OBJECTIVES
1. **Critical Thinking Skills:** To include creative thinking, innovation, inquiry, analysis, evaluation, and synthesis of information
2. **Communication Skills:** To include effective development, interpretation, and expression of ideas through written, oral, and visual communication
3. **Empirical & Quantitative Skills:** To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
4. **Teamwork:** To include the ability to connect choices, actions, and consequences to ethical decision-making

Approved: Initials/date

INSTRUCTOR CONTACT INFORMATION

Instructor: Melanie Daleo

Email: mdaleo@lit.edu

Office Phone: 409-247-5323

Office Location: MPC Building, Office 216

Office Hours: See Starfish for Available Office Hours
Click Here for Starfish

REQUIRED TEXTBOOK AND MATERIALS:

REQUIRED = McGraw-Hill Virtual Labs available through Eagle Learning Essentials
Click Here for Eagle Learning Essentials
REQUIRED = Textbook - OpenStax Anatomy & Physiology Levels I and II
Anatomy and Physiology from OpenStax, Print ISBN 1938168135, Digital ISBN 1947172042,
Click Here for the OpenStax Anatomy & Physiology textbook
Your textbook for this class is available for free online, and a print copy can be purchased online, or obtained through Eagle Learning Essentials.
Click Here for Eagle Learning Essentials
Supplemental = Textbook - WikiBooks – Human Physiology
https://en.wikibooks.org/wiki/Human_Physiology

ATTENDANCE POLICY

1. You must log in to Blackboard and access this course at least 3 times per week.
2. Late assignments will be accepted, except for the final exam, with a late penalty. Students will receive a zero for incomplete assignments.
3. If you wish to drop this course, you must drop it administratively. If you do not drop the course, you will receive an F.

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the Academic Calendar located on the college's Student Success web page. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

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COURSE CALENDAR
BIOL 2102 (LAB) - FALL 2026

Instructor reserves the right to modify as needed

Week:	To Do:	Due Dates
Week 1 **Aug 24th - 28th** ~Introduction ~Endocrine System	Discussion Board: Introduction Syllabus Quiz Join a group for Group Project – Pathogen Presentation due 11.13.26 Complete McGraw Hill Orientation/Introductory Materials - Click on the "McGraw Hill Virtual Labs" folder in "Modules" to register and start labs	08.30.26
Week 2 **Aug 31st - Sep 4th** ~Endocrine System	McGraw Hill Labs: Endocrine System 1. Endocrine System Overview 2. Effects of Blood Glucose Level Start working with group members on Group Project – Pathogen Presentation *due 11.13.26*	09.06.26
Week 3 Holiday Sep 7th **Sep 8th – 11th** ~Endocrine System	McGraw Hill Labs: Endocrine System 3. Thyroid Hormone & Temperature Regulation 4. Endocrine System Lab Quiz Work with group members on Group Project – Pathogen Presentation due *11.13.26*	09.13.26
Week 4 **Sep 14th - 18th** ~Cardiovascular (Heart)	MGH Labs: Cardiovascular 1. Blood Typing 2. Blood Pressure Overview 3. Blood Pressure Physiology Work with group members on Group Project – Pathogen Presentation *due 11.13.26*	09.20.26
Week 5 **Sep 21st - 25th** ~Cardiovascular (Heart & Blood Vessels)	MGH Labs: Cardiovascular 4. Cardiac Cycle Overview 5. Cardiovascular Physiology – Pulse Rate 6. Cardiovascular Physiology – Heart Auscultation 7. Cardiovascular Quiz Work with group members on Group Project – Pathogen Presentation *due 11.13.26*	09.27.26

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Week 6 **Sep 28th - Oct 2nd** ~Immune System	MGH Labs: Immune/Lymphatic 1. Innate Immunity Overview 2. Adaptive Immunity Overview 3. Differential Blood Cell Count 4. Immune System Quiz Work with group members on Group Project – Pathogen Presentation due *11.13.26*	10.04.26
Week 7 **Oct 5th - 9th** ~Respiratory System	MGH Labs: Respiratory 1. Respiratory System Overview 2. Mechanism of Breathing 3. Pulmonary Function Tests 4. Respiratory System Lab Quiz Work with group members on Group Project – Pathogen Presentation *due 11.13.26*	10.11.26
Week 8 **Oct 12th - 16th** ⏰Midterm Exam	⏰**Midterm Exam** Opens 10.14.26 and Closes 10.16.26 (Endocrine, Cardiovascular, Immune, Respiratory) Work with group members on Group Project – Pathogen Presentation *due 11.13.26*	10.16.26
Week 9 **Oct 19th - 23rd** ~Digestive System	MGH Labs: Digestive and Metabolism 1. Enzymes & Digestion 2. Assignment: Digestive System Work with group members on Group Project – Pathogen Presentation *due 11.13.26*	10.25.26
Week 10 **Oct 26th - 30th** ~Digestive System ~Metabolism	MGH Labs: Digestive and Metabolism 3. Digestion Lab Quiz Work with group members on Group Project – Pathogen Presentation *due 11.13.26*	11.01.26
Week 11 **Nov 2nd - 6th** ~Urinary System	MGH LABS: Urinary System 1. Glomerular Filtration 2. Tubular Reabsorption and Secretion **DUE** ➡️ SOON Work with group members on Group Project – Pathogen Presentation *due 11.13.26*	11.08.26
Week 12 **Nov 9th - 13th** ~Urinary System	MGH LABS: Urinary System 3. Urinalysis 4. Urinary System Quiz ⏰**DUE:** Group Project – Pathogen Presentation	11.15.26

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Week 13 **Nov 16th - 20th** ~Reproductive System ~Development ~Inheritance	MGH Labs: Reproductive 1. Development & Inheritance 2. Reproductive System 3. Reproductive System Quiz	11.22.26
Week 14 **Nov 23rd - 24th** Thanksgiving Holiday **Nov 25th - 27th**	▯ ▶️Sleep, rest, relax ▯ ▶️Enjoy time with family and friends ▯ ▶️Netflix, etc. ▯ ▶️Exercise ▯ ▶️Read a good book ▯ ▶️Do something nice for someone	
Week 15 **Nov 30th - Dec 4th** ~Final Exam Review	MGH Labs: Review of Systems • Fetal Pig Dissection Part 1 • Fetal Pig Dissection Part 2 Review for Final Exams Complete missing work	12.04.26
Week 16 ⏰Final Exam Dec 7th - 9th	⏰**FINAL EXAM** Opens 12.07.26 and Closes 12.08.26 (Digestive, Urinary, Reproductive) ▯ 🎉Congratulations!! You made it!! Celebrate 🥳	12.08.26

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- MGH(Lab Activities) 25%
- Quizzes MGH 25%
- Midterm & Final Exam 30%
- Group Lab Project 20%

Total = 100%

GRADING SCALE

- 90-100 A
- 80-89 B
- 70-79 C
- 60-69 D
- 0-59 F

TECHNICAL REQUIREMENTS

For the latest technical requirements, including hardware, compatible browsers, operating systems, etc., review the Minimum Computer and Equipment Requirements on the LIT Online Experience page. A functional broadband internet connection, such as DSL, cable, or WiFi, is necessary to maximize the use of online technology and resources.

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Quizzes and Exams in this course are administered through Blackboard. Exams will be administered with Respondus **LockDown Browser + Respondus Monitor (webcam)**
Requirements to take exams include:

- A reliable computer, desktop or laptop (phones, Chromebooks, tablets, and iPads are not allowed).
- Windows: 10, 8, 7
- Mac: OS X 10.10 or higher
- Adobe Flash Player (bundled with the LockDown Browser installation)
- Web camera (internal or external) & microphone
- A reliable internet service provider. A broadband internet connection.
- A room to take the exam where you are alone (other individuals in the room are not allowed)

Watch these overview videos to understand the tools you will be using to take the exam.
Respondus LockDown
Browser: https://www.youtube.com/watch?v=XuX8WoeAycs#action=share
Respondus Monitor: https://www.youtube.com/watch?v=hv2L8Q2NpO4 - action=share

Respondus **LockDown Browser + Respondus Monitor (webcam)**
Download Instructions:

- Select the quiz in the course
- Under Quiz Requirements, you will see "To take this quiz you must use the Respondus LockDown Browser"
- Below this, you will see: "You can use the button below if you have not already downloaded LockDown Browser". Click the button to go to the download page and then follow the instructions
- Use the link to download Respondus LockDown Browser to your computer; follow the installation instructions
- Return to the Quiz page in Brightspace (it may still be open in another tab) and select the quiz
- Select "Launch LockDown Browser"
- The quiz will now start

Note: You only need to install LockDown Browser once on a computer or device. It will start automatically from then on when a quiz requires it.

Guidelines while taking online quizzes or exams:
Ensure you're in a location where you won't be interrupted.

5. Turn off all other devices (e.g., tablets, phones, second computers) and place them out of reach.
6. Before starting the test, know how much time is available and ensure you've allotted enough time to complete it.
7. Clear your desk or workspace of all external materials not permitted - books, papers, other devices.
8. Remain at your computer for the duration of the test.

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9. If your computer, Wi-Fi, or location differs from what you used previously with the "Webcam Check" and "System & Network Check" in LockDown Browser, run the checks again before the exam.
10. To produce a good webcam video, do the following:
    - Avoid wearing baseball caps, brimmed hats, or hoodies.
    - Ensure your computer or device is on a firm surface (a desk or table). Do NOT have the computer on your lap, a bed, or other surface where the device (or you) are likely to move.
    - If using a built-in webcam, avoid readjusting the screen tilt after the webcam setup is complete.
    - Take the exam in a well-lit room, but avoid backlighting (such as sitting with your back to a window)
    - Remember that LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until you complete and submit all questions.

The following violations during testing will result in a grade of zero or reduction in points:

5. Using technology or electronic devices of any kind, including, but not limited to, iPads, phones, smart glasses, earbuds, and smartwatches.
6. Leaving the testing environment or face missing from frame or obscured.
7. Noises that might indicate external help.
8. Any other questionable activities indicate cheating.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is in the Eagles' Nest Room 129. It fosters a supportive and inclusive educational environment by maintaining partnerships with faculty and staff and promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please get in touch with the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at Special Populations - Lamar Institute of Technology (lit.edu).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand, and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. You can access the *LIT Catalog and Student Handbook* at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

ARTIFICIAL INTELLIGENCE STATEMENT

Lamar Institute of Technology (LIT) recognizes that recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact

many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Instructors determine appropriate use of these technologies. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses.

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also log in to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. Students are responsible for monitoring these emails and Starfish information and taking the recommended actions. Starfish is used to help you be a successful student at LIT.

ADDITIONAL COURSE POLICIES

- A Midterm and final are required, with two attempts per assessment, and you must use Respondus LockDown Browser. The final score will be an ***average of attempts***.
- Five quizzes will be given using Respondus Lockdown Browser, with two attempts given per assessment. The final score will be an ***average of attempts***.
- Students will complete a group project. Points will be deducted for completing the group project without partners.
- Late assignments, **except for the final exam,** will be accepted with a late penalty. Students will receive a zero for incomplete assignments.

ACADEMIC DISHONESTY

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students must familiarize themselves with the institution's Academic Dishonesty Policy, available in the Student Catalog & Handbook at http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty.

STUDENT EXPECTED TIME REQUIREMENTS

For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. For a 3-credit-hour class, students should prepare to allocate approximately six to nine hours per week outside of class in a 16-week session OR approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class.

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