

BIOL 2301
Anatomy & Physiology I Lecture
Fall 2025



LAMAR INSTITUTE
OF TECHNOLOGY

INSTRUCTOR CONTACT INFORMATION

Instructor: Dr. Zachary Grimes
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Office Location: NA
Office Hours: See Starfish for Available Office Hours
[Click Here for Starfish](#)

CREDIT

3 Semester Credit Hours

MODE OF INSTRUCTION

Online

PREREQUISITE/CO-REQUISITE:

Passed the Reading/Writing Sections of TSI or any other accepted test.

Co-requisite Biol 2101

COURSE DESCRIPTION

Anatomy and Physiology I is the first part of a two-course sequence. It is a study of the structure and function of the human body including cells, tissues, and organs of the following systems: integumentary, skeletal, muscular, nervous, and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis.

COURSE OBJECTIVES

Upon successful completion of this course, students will be able to:

1. Use anatomical terminology to identify and describe 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 contributions of organs and systems to the maintenance of homeostasis.
5. Identify causes and effects of homeostatic imbalances.
6. Identify modern technology and tools used to study anatomy and physiology.

CORE OBJECTIVES

1. **Critical Thinking Skills:** To include creative thinking, innovation, inquiry, and 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

REQUIRED TEXTBOOK AND MATERIALS

REQUIRED = Textbook - OpenStax Anatomy & Physiology Levels I and II

Anatomy and Physiology from OpenStax, Print ISBN 1938168135, Digital ISBN 1947172042,

[Click Here for 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 into Blackboard and access this course a minimum of 3 times per week.
2. Late assignments will be accepted with a deduction as a late penalty. Students will receive a zero for assignments not completed.
3. If you wish to drop this course, you must drop it administratively. If you do not drop, you will receive an F for the course.

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](#). If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

STUDENT EXPECTED TIME REQUIREMENT

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.

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- | | |
|--------------------------------------|-------|
| 1. Quizzes | = 20% |
| 2. Discussion & Participation | = 10% |
| 3. Individual & Group Project | = 20% |
| 4. Midterm & Final Exam | = 30% |
| 5. Assignments (Video Quizzes, etc.) | = 20% |

Total = 100%

GRADING SCALE

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

ACADEMIC DISHONESTY

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to 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>.

AI STATEMENT

Lamar Institute of Technology (LIT) recognizes the 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 assignment appropriately. Appropriate use of these technologies is at the discretion of the instructor. 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 acceptable use of AI / ChatGPT in their courses.

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <https://lit.edu/online-learning/online-learning-minimum-computer-requirements>. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

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 will appear: "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: LockDown Browser only needs to be installed once on a computer or device. It will start automatically from that point forward when a quiz requires it.

Guidelines while taking online quiz, follow these guidelines

- Ensure you're in a location where you won't be interrupted.
- Turn off all other devices (e.g. tablets, phones, second computers) and place them outside of your reach.
- Before starting the test, know how much time is available for it, and also that you've allotted sufficient time to complete it.
- Clear your desk or workspace of all external materials not permitted - books, papers, other devices.
- Remain at your computer for the duration of the test.
- If the computer, Wi-Fi, or location is different than what was used previously with the "Webcam Check" and "System & Network Check" in LockDown Browser, run the checks again prior to the exam.
- To produce a good webcam video, do the following:
 - Avoid wearing baseball caps or hats with brims.
 - 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 tilt of the screen 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 all questions are completed and submitted.

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

- Using technology or electronic devices including, but not limited to, iPads, phones, smart glasses, earbuds, smartwatches.
- Leaving the testing environment or face missing from frame or obscured.
- Noises that might indicate external help.
- Any other questionable activities indicating 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 located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact 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 \(lit.edu\)](http://SpecialPopulations-LamarInstituteofTechnology(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*. The *LIT Catalog and Student Handbook* may be accessed 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.

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 login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

Course Requirements

- A Midterm and Final is required with two attempts given per assessment and uses 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 video quizzes and discussion boards for each unit.
- Students will complete an individual project and a group project. A deduction in points will be given for completing group project without partners.
- Late assignments will be accepted with a deduction as a late penalty. Students will receive a zero for assignments not completed.

Tentative Course Schedule

Instructor reserves the right to modify as needed

Week:	To Do:	Due Date:
<u>Week 1</u> Aug 25 th – 29 th Introduction Directional Terms Study of Life <u>Total Video Time:</u> 18 minutes	□ Discussion Board 1: Introduction □ Discussion Board 2: Netiquette □ Syllabus Quiz/Syllabus Acknowledgement	□ 08.31.25
	□ Video Quiz: Introduction to Anatomy & Physiology (Chapter 1) [11 minutes] □ Video Quiz: Directional Terms (Chapter 1) [3 minutes 15 seconds] □ Video Quiz: Body Planes (Chapter 1) [1m 35s] □ Video Quiz: Body Cavities (Chapter 1) [1m 26s] □ Discussion Board 3: Regional & Directional Terms □ <u>Read OpenStax A&P Chapter 1</u> □ Look over instructions for Individual Project (Health Science Career Poster) due 09.28.25 □ Join a group for Group Project (Muscle Video) due 11.02.25	□ 09.03.25
<u>Week 2</u> Holiday Sep 1 st Sep 2 nd – 5 th Elements, Cells, Tissues <u>Total Video Time:</u> 5 minutes	□ Video Quiz: Elements of the Human Body (Chapter 2) [1 m 52 s] □ Video Quiz: Levels of Organization in the Body (Chapter 3) [2m 45s] □ <u>Read OpenStax Chapter 2</u> □ <u>Read OpenStax Chapter 3</u> □ Work on Individual Project (Health Science Career Poster) due 09.28.25 □ Work on Group Project (Muscle Video) due 11.02.25	□ 09.07.25
<u>Week 3</u> Sep 8 th – 12 th Elements, Cells, Tissues <u>Total Video Time:</u> 18 minutes	□ Video Quiz: Cell Structure (Chapter 3) [7m 22s] □ Video Quiz: Tissues (Chapter 4) [10m 43s] □ Quiz 1: Chapter 1 (Introduction), Chapter 2 (Elements), Chapter 3 (Cells), Chapter 4 (Tissues) □ <u>Read OpenStax Chapter 4</u> □ Work on Individual Project (Health Science Career Poster) due 09.28.25 □ Work on Group Project (Muscle Video) due 11.02.25	□ 09.11.25 □ Quiz 1 opens 09.12.25 and closes 09.13.25
<u>Week 4</u> Sep 15 th – 19 th Integumentary System <u>Total Video Time:</u> 20 minutes	□ Video Quiz: Integumentary System Part 1 (Chapter 5) [9m 40s] □ Video Quiz: Integumentary System Part 2 (Chapter 5) [9m 22s] □ <u>Read OpenStax Chapter 5</u> □ Due SOON → Work on Individual Project (Health Science Career Poster) due 09.28.25 □ Work on Group Project (Muscle Video) due 11.02.25	□ 09.21.25
<u>Week 5</u> Sep 22 nd – 26 th Complete Integumentary	□ Discussion Board 4: Integumentary □ Quiz 2: Chapter 5 (Integumentary) □ DUE: Individual Project (Health Science Career Poster) due 09.28.25 □ Work on Group Project (Muscle Video) due 11.02.25	□ 09.24.25 □ Quiz 2 opens 9.25.25 and closes 09.26.25

	<u>Read OpenStax Chapter 5</u>	Career Poster Project due 09.28.25
<u>Week 6</u> Sep 29th – Oct 3rd Skeletal System & Joints <u>Total Video Time:</u> 18 minutes	- Discussion Board 5: Skeletal System Anatomy - Video Quiz: Skeletal (Chapter 6) [7m 59s] - Video Quiz: Axial vs. Appendicular Skeleton (Chapter 7) [3m 19s] - Video Quiz: What Bones Tell Us (Chapter 8) [6m 26s] - Discussion Board 6: Post 2 Comments on Individual Poster Projects <u>Read OpenStax Chapter 6</u> <u>Read OpenStax Chapter 7</u> Work on Group Project (Muscle Video) due 11.02.25	10.05.25
<u>Week 7</u> Oct 6th – 10th Skeletal System & Joints <u>Total Video Time:</u> 20 minutes	- Discussion Board 7: Joints - Video Quiz: Whose Bones Are These? (Chapter 8) [7m 7s] - Video Quiz: Introduction to Joints (Chapter 9) [2m 52s] - Video Quiz: Bones and Joints (Chapter 9) [9m 22s] <u>Read OpenStax Chapter 8</u> <u>Read OpenStax Chapter 9</u> Quiz 3: Chapters 6 – 9 (Skeletal System & Joints) Work on Group Project (Muscle Video) due 11.02.25	10.09.25 Quiz 3 opens 10.10.25 and closes 10.11.25
<u>Week 8</u> Oct 13th – 17th Midterm Exam	Midterm Exam Opens 10.15.25 and Closes 10.17.25 (Chapters 1 - 9) Submit Group Project Muscle Movement Plan Work on Group Project (Muscle Video) due 11.02.25	Midterm due 10.17.25
<u>Week 9</u> Oct 20th – 24th Muscular System <u>Total Video Time:</u> 10 minutes	- Discussion Board 8: Muscular System - Video Quiz: Muscular System (Chapter 10) [5m 59s] - Video Quiz: How the Muscular System Works (Chapter 11) [4m 45s] <u>Read OpenStax Chapter 10</u> <u>Due SOON</u> → Work on Group Project (Muscle Video) due 11.02.25	10.26.25
<u>Week 10</u> Oct 27th – 31st Muscular System <u>Total Video Time:</u> 11 minutes	- Video Quiz: Muscles (Chapter 11) [10m 41s] Work with group members on Group Project (Muscles Video) due 11.02.25 <u>Read OpenStax Chapter 11</u> Quiz 4: Chapters 10 – 11 (Muscular System)	10.29.25 Quiz 4 opens 10.30.25 and closes 10.31.25
<u>Week 11</u> Nov 3rd – 7th	- Discussion 9: Nervous System – Brain & Stress - Video Quiz: Nervous System (Chapter 12) [9m 22s]	11.09.25

Nervous System <u>Total Video Time:</u> 10 minutes	☐ <u>Read OpenStax Chapter 12</u> ☐ <u>Read OpenStax Chapter 13</u>	
<u>Week 12</u> Nov 10 th – 14 th Nervous System <u>Total Video Time:</u> 11 minutes	☐ Discussion 10: Divisions of Nervous System ☐ Video Quiz: Anatomy of the Nervous System (Chapter 13) [10m 26s] ☐ <u>Read OpenStax Chapter 14</u> ☐ <u>Read OpenStax Chapter 15</u>	☐ 11.16.25
<u>Week 13</u> Nov 17 th – 21 st Nervous System <u>Total Video Time:</u> 11 minutes	☐ Video Quiz: Nervous System-Senses (Chapter 14) [10m 32s] ☐ <u>Read OpenStax Chapter 16</u> ☐ Quiz 5: Chapters 12 - 16 (Nervous System)	☐ 11.20.25 ☐ Quiz 5 opens 11.21.25 and closes 11.22.25
<u>Week 14</u> Nov 24 th – 25 th Thanksgiving Holiday Nov 26 th – 28 th Thanksgiving Break	☐ <i>Review for Final Exam (Chapters 1-16)</i> ☐ <i>Work on missing assignments</i> ☐ Sleep, rest, relax ☐ Enjoy time with family and friends ☐ Netflix, etc. ☐ Exercise ☐ Read a good book ☐ Do something nice for someone	
<u>Week 15 & 16</u> Dec 1 st – 5 th Dec 8 th – 10 th Review Final Exam	☐ Review for Final Exam (Chapters 1 - 16) ☐ FINAL EXAM Opens 12.06.25 and Closes 12.08.25 (Chapters 1 – 16) ☐ Congratulations!! You made it!! Celebrate ☺	☐ Final is due 12.08.25 by 11:59 pm