BIOL 2101-2A1, 2B1, 2C1

CREDIT
1 Semester Credit Hour (Web-Based Lab)

MODE OF INSTRUCTION
Online

PREREQUISITE/CO-REQUISITE:
Passed the Reading/Writing Sections of THEA or any other accepted test

Co-requisite Biol 2301

COURSE DESCRIPTION
The lab provides a virtual learning experience for exploration of human system components and basic physiology. Systems to be studied include integumentary, skeletal, muscular, nervous, and special senses.

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

- Apply appropriate safety and ethical standards.
- Locate and identify anatomical structures.
- Appropriately utilize laboratory equipment such as microscopes, dissection tools, general labware, physiology data acquisition systems, and virtual simulations.
- Work collaboratively to perform experiments.
- Demonstrate the steps involved in the scientific method.
- Communicate results of scientific investigations, analyze data, and formulate conclusions.
- Use critical-thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations, and predictions.

CORE OBJECTIVES

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

Approved: Initials/date

INSTRUCTOR CONTACT INFORMATION

Instructor:	Zachary T Grimes, PhD
Email:	zgrimes@lit.edu
Office Phone:	NA – online adjunct
Office Location:	NA – online adjunct
Office Hours:	NA – online adjunct – email for appointment

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

- You must log into Blackboard and access this course a minimum of 3 times per week.
- Late assignments will be accepted with a deduction as a late penalty. Students will receive zero for assignments not completed.
- 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 date as listed in the College's Academic Calendar on the Student Success web page. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

COURSE CALENDAR
Weekly Checklist – Spring 2026
ONLINE BIOL 2101 (LAB)

Week:	To Do:	Due Date:
Week 1 **Introduction** Jan 20th – 23rd	☐ Discussion Board: Introduction ☐ Register for McGraw-Hill Virtual Labs (Information on Blackboard under "Module 1" ☐ Syllabus Quiz ☐ Join a group for Group Lab Musculoskeletal Disorders due 04.22.26	☐ 01.25.26
Week 2 **Directional Terms** **Elements, Cells, Tissues** Jan 26th – 30th	☐ Module 1: McGraw-Hill Connect Interactive Lab Activities covering Body Orientation, Tests for Macromolecules, and Microscope ☐ Work with group for Group Lab Musculoskeletal Disorders due 04.22.26	☐ 02.01.26
Week 3 **Elements, Cells, Tissues** Feb 2nd – 6th	☐ Module 1 McGraw-Hill Connect Interactive Lab Activities covering Cells and Tissues ☐ Work with group for Group Lab Musculoskeletal Disorders due 04.22.26	☐ 02.08.26
Week 4 **Integumentary System** Feb 9th – 13th	☐ Module 2: McGraw-Hill Connect Interactive Lab Activities covering Integumentary System ☐ Work with group for Group Lab Musculoskeletal Disorders due 04.22.26	☐ 02.15.26
Week 5 **Skeletal System & Joints** Feb 16th – 20th	☐ Module 2: McGraw-Hill Connect Interactive Lab Activities covering Skeletal System & Joints ☐ Work with group for Group Lab Musculoskeletal Disorders due 04.22.26	☐ 02.22.26
Week 6 **Skeletal System & Joints** Feb 23rd – 27th	☐ Module 2 McGraw-Hill Connect Interactive Lab Activities covering Skeletal System & Joints ☐ Work with group for Group Lab Musculoskeletal Disorders due 04.22.26 ☐	☐ 03.01.26
Week 7 **Skeletal System & Joints** March 2nd – 6th	☐ Module 2: McGraw-Hill Connect Interactive Lab Activities covering Skeletal System & Joints ☐ Work with group for Group Lab Musculoskeletal Disorders due 04.22.26	☐ 03.06.26

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Week 8 **March 9th – 13th** **Spring Break**	Sleep, rest, relax Enjoy time with family and friends Netflix, etc. Exercise Read a good book Do something nice for someone	
Week 9 **Midterm Exam** Mar 16th – 20th	☐ Midterm Exam *Opens 03.17.26 and closes 03.18.26* ☐ Work with group for Group Lab Musculoskeletal Disorders due 04.22.26	Midterm Exam 03.18.26
Week 10 **Muscular System** Mar 23rd – 27th	☐ Module 2: McGraw-Hill Connect Interactive Lab Activities covering Muscular System ☐ Work with group for Group Lab Musculoskeletal Disorders due 04.22.26	☐ 03.29.26
Week 11 **Muscular System** Mar 30st – April 3rd	☐ Module 2: McGraw-Hill Connect Interactive Lab Activities covering Muscular System ☐ Work with group for Group Lab Musculoskeletal Disorders due 04.22.26	☐ 04.05.26
Week 12 **Muscular System** April 6th – 10th	☐ Module 2: McGraw-Hill Connect Interactive Lab Activities covering Muscular System ☐ Work with group for Group Lab Musculoskeletal Disorders due 04.22.26	☐ 04.12.26
Week 13 **Nervous System** April 13th – 17th	☐ Module 3: McGraw-Hill Connect Interactive Lab Activities covering Nervous System ☐ **DUE SOON →** Work with group for Group Lab Musculoskeletal Disorders due 04.22.26	☐ 04.19.26
Week 14 **Nervous System** April 20tht – 24th	☐ Module 3: McGraw-Hill Connect Interactive Lab Activities covering Nervous System ☐ **DUE →** Group Lab Musculoskeletal Disorders due 04.22.26	☐ 04.26.26
Week 15 **Nervous System** April 27th – May 1st	☐ Module 3: McGraw-Hill Connect Interactive Lab Activities covering Nervous System	☐ 05.01.26
Week 16 **Review** May 5th – 8th	☐ Review for Final Exam (Chapters 1 - 16) ☐ Be sure you are caught up on all assignments	
Week 17 **Review** May 11th – 13th	☐ FINAL EXAM *Opens 05.09.26 and Closes 05.11.26* (Chapters 1 – 16) Congratulations! You made it!! Celebrate 😊	FINAL EXAM *Opens 05.09.26* *Closes 05.11.26*

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COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- Mandatory Syllabus Quiz = 5%
- Assignments (Lab Activities) = 25%
- Quizzes MGH = 20%
- Group Lab Project = 20%
- Midterm & Final Exams = 30%

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Total = 100%

GRADE 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.

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

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- 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.

Follow these guidelines while taking online exams

- 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, 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 before the exam.
- To produce a good webcam video, do the following
    - Avoid wearing baseball caps, hats with brims, 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 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 a 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.

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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).

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.

ARTIFICIAL INTELLIGENCE 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 assignments 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 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. 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.

ADDITIONAL COURSE POLICIES/INFORMATION

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, **except for the final exam,** will be accepted with a deduction as a late penalty. Students will receive a zero for assignments not completed.

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.

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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