

BIOL 1107-2A2
Biology for Science Majors I Lab
Fall 2026

Credit: 1 semester credit hours (2 hours lab)

Prerequisite/Co-requisite:

TSI Complete

Biology 1307 Corequisite



Course Description

This laboratory-based course accompanies BIOL 1307, Biology for Science Majors II. Laboratory activities will reinforce study of the diversity and classification of life, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals.

Course Objectives

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

1. Apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
2. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
3. Communicate effectively the results of scientific investigations.
4. Demonstrate knowledge of modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.
5. Distinguish between phylogenetic relationships and classification schemes.
6. Identify the major phyla of life, with emphasis on plants and animals, including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
7. Describe basic animal physiology and homeostasis as maintained by organ systems.
8. Compare different sexual and asexual life cycles noting their adaptive advantages.
9. Illustrate the relationship between major geologic change, extinctions, and evolutionary trends.

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

INSTRUCTOR CONTACT INFORMATION

Instructor: Leah Alsibaa
Email: lalsibaa@lit.edu
Office Phone: 409-247-5069
Office Location: N/A
Office Hours: See Starfish for available office hours -
[Click Here for Starfish](#)

TEXTBOOK AND MATERIALS:

- REQUIRED = Textbook - OpenStax Biology 2e –
<https://openstax.org/details/books/biology-2e?Book%20details>
- 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](#)

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.

Instructor reserves the right to modify the schedule as needed

Week:	To Do:	Due Dates
Week 1 Aug 24th – 28th Introduction Evolution (Module 4)	• Syllabus Quiz • Discussion: Introduction • McGraw-Hill Connect Virtual Labs: ▪ Virtual Labs Tutorial ▪ Lab Safety: Handwashing ▪ Lab Safety: Personal Safety ▪ Quiz: Lab Safety • Sign up & start working on Group Project: Scavenger Hunt due 11.01.26	08.30.26
Week 2 Aug 31st – Sept 4th Evolution (Module 4)	• MGH Connect Virtual Labs: ▪ Evidence of Evolution – Fossils & Comparative Anatomy ▪ Evidence of Evolution - Molecular Evidence ▪ Natural Selection — Antibiotic Resistance ▪ Natural Selection in Insects ▪ Assignment: Evolution in the News ▪ Quiz: Evolution • Work on Group Project: Scavenger Hunt due 11.01.26	09.06.26
Week 3 Holiday Sept 7th Sep 8th – 11th `Bacteria & Viruses (Module 5)	• MGH Connect Virtual Labs: ▪ Diversity of Microorganisms ▪ Bacterial Unknown #1 ▪ Bacterial Unknown #5 • Work on Group Project: Scavenger Hunt due 11.01.26	09.13.26
Week 4 Sep 14th – 18th `Bacteria & Viruses (Module 5)	• MGH Connect Virtual Labs: ▪ Bacterial Unknown #10 ▪ Assignment: Bacteria & Viruses in the News ▪ Quiz: Bacteria & Viruses • Work on Group Project: Scavenger Hunt due 11.01.26	09.20.26

Week 5 Sep 21st – 25th `Fungi & Protists (Module 5)	• MGH Connect Virtual Labs ▪ Microscopy: Euglena • Work on Group Project: Scavenger Hunt due 11.01.26	09.27.26
Week 6 Sep 28th – Oct 2nd `Fungi & Protists (Module 5)	• MGH Connect Virtual Labs: ▪ Microscopy: Pond Water ▪ Quiz: Protists & Fungi • Work on Group Project: Scavenger Hunt due 11.01.26	10.04.26
Week 7 Oct 5th – 9th Midterm Exam	• MIDTERM EXAM covers Chapters 18 – 24 opens 10.09.26 and closes 10.11.26 • Work on Group Project: Scavenger Hunt due 11.01.26	10.11.26
Week 8 Oct 12th – 16th `Plant Diversity, Structure & Function (Module 5 – Chp 26 & 26) (Module 6)	• MGH Connect Virtual Labs: ▪ Dissection Tutorial for Animals & Plants ▪ Microscopy: Plant Cells ▪ Gymnosperms ▪ Angiosperm Reproduction • Work on Group Project: Scavenger Hunt due 11.01.26	10.18.26
Week 9 Oct 19th – 23rd `Plant Diversity, Structure & Function (Module 5 – Chp 26 & 26) (Module 6)	• MGH Connect Virtual Labs: ▪ Bloom Color & pH ▪ Gravitropism & Phototropism ▪ Transpiration ▪ Transgenic Organisms – Bt corn ▪ Quiz: Plants • DUE SOON → Group Project: Scavenger Hunt due 11.01.26	10.25.26
Week 10 Oct 26th – 30th Animal Structure & Function	• MGH Connect Virtual Labs: ▪ Invertebrate Dissection – Crayfish ▪ Invertebrate Dissection – Earthworm ▪ Invertebrate Dissection – Mussel ▪ Invertebrate Dissection – Sea Star	11.01.26

(Module 5 - Chp 27-29) (Module 7)	• DUE: Group Project: Scavenger Hunt due 11.01.26	
Week 11 Nov 2nd – 6th Animal Structure & Function (Module 5 - Chp 27-29) (Module 7)	• MGH Connect Virtual Labs: ▪ Vertebrate Dissection – Perch ▪ Vertebrate Dissection – Frog ▪ Vertebrate Dissection – Fetal Pig 1 ▪ Vertebrate Dissection – Fetal Pig 2 ▪ Quiz: Animals	11.08.26
Week 12 Nov 9th – 13th Ecology (Module 8)	• MGH Connect Virtual Labs: ▪ Population Biology – Growth and Competition ▪ Biological Sampling ▪ Comparing Ecosystems	11.15.26
Week 13 Nov 16th – 20th Ecology (Module 8)	• MGH Connect Virtual Labs ▪ Assignment: Ecology in the News ▪ Quiz: Ecology	11.20.26
Week 14 Nov 23rd – 25th Thanksgiving Holiday Nov 25th – 27th	• Work on missing assignments • 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 – 4th Ecology (Module 8)	• Review for Final Exams • Make up missing assignments	
Week 16 Dec 7th – 9th Final Exam	• FINAL EXAM (Chapters 26 – 47) opens 12.05.26 and closes 12.08.26 You made it!! Congratulations ☺	

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. Assignments (Lab Activities) = 25%
2. Quizzes MGH = 20%
3. Group Lab Project = 20%
5. Final Exam = 30%

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 (for courses using Blackboard)

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

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.

<https://lit.edu/student-success/starfish>

Student Code of Conduct

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.

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Course Requirements

- A Final is required with two attempts given per assessment and uses Respondus Lockdown Browser. The final score will be an **average of attempts**.
- Students will complete McGraw Hill virtual labs and quizzes.
- Students will complete 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.