

Principles of Biology Lab

Last Updated: Mon, 07/28/2025

Course prefix: BIOS

Course number: 1107L

Section: L05

CRN (you may add up to five):
90083

Instructor First Name: Colin

Instructor Last Name: Harrison

Semester: Fall

Academic year: 2025

Course description:

Laboratory exercises supplement the lecture material of BIOL 1107. A laboratory-based introduction to biological principles, including biomacromolecules, bioenergetics, cell structure, genetics, evolution, and ecological relationships for STEM majors and prehealth students.

Course learning outcomes:

The objective of BIOS 1107 Lab is to give you experience in how to carry out research in biology by researching the background of an experiment, designing an experiment, formulating a hypothesis, and then analyzing and interpreting data. You will learn how to explore the background of a research topic and ways in which biology connects to real world problems and issues. You will gain experience in scientific communication by creating and evaluating written lab reports and by giving research presentations. You will also get experience in working collaboratively with a group as you design your experiment.

Required course materials:

The lab manual is Biological Sciences 1107 Biological Principles Lab manual (978-1-5339-4496-2) is required for this course and available for delivery via the bookstore. The manual includes carbonless notebook paper. You are required to use this edition. You will also need a lab coat and safety goggles which are also available via the University Bookstore.

Grading policy:

Grades: Your lab grade is comprised of the components described below, which are a mix of individual and group assignments:

- The final lab reports are worth 35% of your lab grade
- The lab report drafts and peer feedback assignments are worth 10% of your lab grade
- Your pre-lab assignments will be 5% of your lab grade
- Your research proposals are worth 20% of your lab grade
- Your presentations are worth 15% of your lab grade
- Your participation is worth 15% of your lab grade

Attendance policy:

If you have to miss class for any other reason please contact Dr. Harrison AND your TAs via email as soon as possible (all on the same email). Students will be allowed one excused absence for the semester and be required to make-up missed work/assignments. There are no make-up labs for unexcused absences. An unexcused lab results in a 10% reduction of your lab grade and loss of participation points for that lab. Note: if you miss a lab you are still responsible for completing assignments and getting data from group members.

Academic honesty/integrity statement:

Students are expected to maintain the highest standards of academic integrity. All work submitted must be original and properly cited. Plagiarism, cheating, or any form of academic dishonesty will result in immediate consequences as outlined in the university's academic integrity policy.

Core IMPACTS statement(s) (if applicable):

This is a Core IMPACTS course that is part of the STEM area.

Core IMPACTS refers to the core curriculum, which provides students with essential knowledge in foundational academic areas. This course will help students master course content, and support students' broad academic and career goals.

This course should direct students toward a broad Orienting Question

- How do I ask scientific questions or use data, mathematics, or technology to understand the universe?

Completion of this course should enable students to meet the following Learning Outcome

- Students will use the scientific method and laboratory procedures or mathematical and computational methods to analyze data, solve problems, and explain natural phenomena.

Course content, activities and exercises in this course should help students develop the following Career-Ready Competencies:

- Inquiry and Analysis
- Problem-Solving
- Teamwork