Biology 118, General Biology Laboratory (1 credit)
Course Syllabus: Fall, 2025

Asynchronous Online Prelab – Prerecorded lectures (Posted on Monday mornings)
In-person Lab Meets for 3 hours: Tues-Fri, ISC 101 and ISC 103

INSTRUCTOR INFORMATION:

Robert Feissner – Course Coordinator: Office: ISC 356, Ph: 245-5022,
e-mail: feissner@geneseo.edu Office hours: Wed & Fri, 12:00 PM – 1:00 PM and by appointment in ISC 356.

Fall 2025 Biol 118 Teaching Team

Lab section	Meeting Time/Location	Lab Supervisor
Section 01	Tuesday, 8:00 - ISC 101	Dr. Robert Feissner, feissner@geneseo.edu
Section 02	Tuesday, 8:00 - ISC 103	Dr. Joshua Baecker, baecker@geneseo.edu
Section 03	Tuesday, 11:00 - ISC 103	Dr. Robert Feissner, feissner@geneseo.edu
Section 04	Tuesday, 11:00 - ISC 101	Dr. Jani Jewis, lewisj@geneseo.edu
Section 05	Tuesday, 2:00 - ISC 103	Dr. David Holtzman, holtzman@geneseo.edu
Section 06	Tuesday, 2:00 - ISC 101	Dr. Brian Hoven, bhoven@geneseo.edu
Section 07	Wednesday, 2:00 - ISC 103	Dr. Suann Yang, yang@geneseo.edu
Section 08	Wednesday, 2:00 - ISC 101	Nathan Morris, nmorris@geneseo.edu
Section 09	Thursday, 8:00 - ISC 101	Dr. Travis Bailey, baileyt@geneseo.edu
Section 10	Thursday, 11:00 - ISC 101	Dr. Kevin Militello, militello@geneseo.edu
Section 11	Thursday, 2:00 - ISC 101	Dr. Brian Hoven, bhoven@geneseo.edu
Section 12	Thursday, 2:00 - ISC 103	Donald Fox, dfox@geneseo.edu
Section 13	Friday, 11:30 – ISC 103	Dr. David Holtzman, holtzman@geneseo.edu
Section 14	Thursday, 11:00 - ISC 103	Donald Fox, dfox@geneseo.edu
Section 15	Thursday, 8:00 - ISC 103	Amber Hodoroski, ahodoroski@geneseo.edu

Required Materials

There are no required textbooks for this class. However, you will be REQUIRED to come to each laboratory meeting with:

- Lab notebook containing the laboratory printout (which you can obtain from Brightspace), plain notebook paper, pencil and pen.

- Laptop computer. Each group (lab bench) must have at least one laptop to use during the lab per pair of students. Students in the lab are responsible for providing the laptops (Mac or PC only, no iPad, tablet, or Chromebooks).

- Personal Safety Equipment
    a) **Shoes with closed toes.** You must wear closed toe shoes at all times. If you show up in open-toed shoes you will not be able to participate in lab.

- Recommended Textbook:

  "A Primer in Biological Data Analysis and Visualization Using R, 2nd Edition", Gregg Hartvigsen, Columbia University Press., (ISBN 9780231202138). This book will help you understand statistical analysis and how to use the statistical software 'R'. This is not reauired, but will serve as a good resource this semester and next (in Biol 120). You may also use this textbook in Ecology next year and possibly in other advanced level biology classes so hold onto it.

Course Goals, Content, and Learning Objectives

General Biology Laboratory (Biol 118) may be very different from your previous Biology laboratory courses in that it stresses the scientific process in Biology more than facts and details. Our main goal is to help you employ the scientific method to understanding problems in biology so that you can apply the scientific method to your upper-level biology courses.

The course specific Learning Objectives of General Biology Laboratory are as follows;

- to understand experimental design and how to interpret results
- to introduce some of the techniques and equipment used in experimental biology.
- to illustrate some important biological concepts such as diffusion.
- to develop skills and approaches for communicating science to lay and expert audiences.

This lab course fulfils one part of the GLOBE Broad Knowledge Area of Scientific Literacy with paired with a lecture course (Biol 117 or 119). Scientific Literacy recognizes the importance of being able to understand, evaluate, and replicate quantitative and symbolic forms of reasoning as the basis of scientific arguments built on empirical evidence, in order to work ethically with technology and contribute to a scientifically informed society.

In Biol 118, Students will demonstrate scientific reasoning applied to the natural world by;

- understanding the methods scientists use to explore natural phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of data analysis or mathematical modeling.
- applying scientific data, concepts, and models to questions in biology.

Since the approach of this laboratory stresses scientific process, it is important to understand that *how* you do the laboratory can often be as critical as the results you obtain. If you come in unprepared and work haphazardly it will be difficult to analyze your data and answer the questions asked in the laboratory manual. This approach is not meant to make the laboratory difficult, but to give you a closer approximation of experimental laboratory science. It also gives you more control over your grade in the laboratory since your understanding of, and care in executing the lab experiments and activities should enhance your grade. The content of the laboratory course will periodically match-up with the material taught in the lecture class, so expect new content to be introduced in lab that is not addressed in the corresponding lecture class (e.g. Biol 117: General Biology Lecture) and *vice versa*. For this reason, attendance is critical to your understanding of the laboratory content.

Health and Wellbeing

Your health and wellbeing are foundational to your ability to learn, and if you find that you are feeling unwell (physically or mentally) and it is impacting your ability to complete your coursework, please reach out. Please remember that it's never too late to ask for help.

In a similar way, I will occasionally ask for some patience and flexibility on your part. College changes can affect faculty as well as students by creating demands that would not be present in an ordinary semester. If I am slow responding to an email, if I take some time to grade an assignment, if I am a bit late posting a video lecture, please be patient (and feel free to send me a 'What's Going ON, Feissner" e-mail; I will not be offended). You will never suffer any disadvantage in the course because of delays on my part.

This is a hybrid course

Lectures are online (Prelab) lecture:

This course consists of two required educational elements each week. Part 1 is a prelab lecture that introduces each week's lab and provides important background and instructions that will be needed to be successful in lab. These videos are hosted on YouTube and are found within the modules in your Brightspace Lab course. These videos are where a substantial portion of the content in the course will be presented and are integral to the course and must not be skipped. Videos will always be available to watch on Monday morning of each lab week (but will often be available earlier). There will be a weekly flowchart or concept-map assignment that includes content from the lecture videos.

It can be a challenge to determine out what needs to be done each week, especially for courses with substantial online content. Here is a general guide for how to approach this course every week...

1. On Sunday or Monday each week, look for and watch lecture videos posted to the current week's Module. These must be watched BEFORE you attend lab each week and will be essential for the pre-lab quiz or flowchart assignment each week. The Powerpoint files used to make those videos are posted as well, so you can review on your own.
2. Download and look over the lab for the week. This will be found in the current week's module.
3. Complete the preparatory assignment after reviewing the prelab lecture materials. This will consist of either a prelab assignment on Brightspace, or a handwritten flowchart assignment to turn in before class.
4. Attend Lab at your section's three-hour meeting time on Tuesday - Friday!

Labs are Required and are Face-to-face:

We greatly value the learning opportunities we'll have in our in-person class meetings and hope that you will actively participate in this important element of the learning process.

Lab Makeups:

Labs often use materials (e.g. living organisms) that are only available for a week, so makeup opportunities are very limited. If you know that you will miss a lab in advance, please email your faculty instructor to let them know, and to arrange to sit in on another lab section that

week. You will require permission from BOTH your instructor and the instructor of the section you wish to attend. If a makeup opportunity is not possible, you may be allowed to work on the lab assignment with your lab group after attending your instructor's office hours to get caught up with the experiment.

3-lab policy (attendance requirement):

This lab meets one time each week for a total of thirteen in-person classes of experimentation. Attendance is mandatory, but reasonable allowances for absences are accepted on a limited basis. However, you must not miss more than two labs (for any reason, excused or not) during the semester or you will be given a failing grade for the course (or you may withdraw). If you anticipate needing to miss more than two labs, please contact the Dean of Students (deanstu@geneseo.edu) to notify the school of your extended absence or extenuating circumstances. The Dean's Office will help you manage extended absences or issues that lead to you missing multiple classes.

Attendance and Public Health

SUNY Geneseo is a residential liberal arts college where we all learn together in a shared space. Engaging in discussions and collaborative problem solving is vital to creating a classroom community. This classroom community is vital for engaging in discussions, solving problems, and answering questions together. Learning is an active process, and it requires engagement - on my part and yours. We promise to create an interactive and collaborative classroom space, and in return we expect you to attend and engage in the activities.

We want you to be successful and because we value your contribution to the course, we expect you to prioritize attendance. If you are experiencing symptoms associated with a health issue on a day we have class, please take a self-test for COVID if appropriate, or seek assistance at the health center. If you test negative and feel well enough to attend, put on a well-fitting mask, come to class, and maintain physical distance as much as possible. If your symptoms do not allow you to attend class, stay home (except to go to the health center), rest, and take care of yourself. We expect you to communicate with us directly about your absences. We can support you to keep up with class if you are out for health-related reasons, but we need you to take responsibility for being transparent and clear in letting us know when you are out and why. Although we can work with you on keeping up, you may miss some course content and extended absences may impact your ability to realize your full potential in this class. For extended absences (i.e., more than a couple of days of classes), you should contact the Dean of Students (deanstu@geneseo.edu), who can assist with reaching out to your faculty.

Finally, we want you to succeed and learn in this class, and we want to protect our community from illness as best as we can.

Instructional Team and Course Structure

The Biology 118 Laboratory course supports a very large number of students (greater than 250 students every semester). This requires the cooperation of a teaching team rather than a single instructor to provide the best educational experience for all students. The Biol 118 teaching team consists of one faculty course coordinator (Dr. Feissner), faculty lab instructors, and experienced undergraduate lab Instructors (ULIs). The roles and duties of each team member are described below.

Course Leaders: Dr. Feissner is the coordinator of Biol 118 and teaches the Monday online Prelab Lectures. The course leader oversees all labs and works closely with the faculty and Undergraduate Lab Instructors in preparing and teaching all labs.

Faculty Instructors: Faculty instructors are full-time faculty in the Biology Department that oversee lab sections. Due to the size of the Biol 118 class, two labs sections are held together in adjoining lab rooms. The Faculty instructors will work with one section during the lab period. The faculty instructors for lab are listed on the 1st page of this syllabus along with their office location, phone, and office hours.

Undergraduate Lab Instructors (ULIs): ULIs are the secondary instructional personnel in some lab sections. ULIs are exceptional students that have previously taken Biol 118 and have an interest in teaching elements of the lab themselves. While your faculty instructor is in charge of your section, your ULI can be a go-to person for questions regarding the lab, especially during the times when the instructor is working with other lab groups. ULIs cannot address any grading or Brightspace issues but may hold optional office hours during the semester for assistance.

Lab groups:

Students will be assigned to laboratory groups the first laboratory period. Each lab bench will work as a 2, 3, or 4-person group (depending on enrollment). Your groups *will* change during the semester so it is helpful to note things that worked well with your group to share in your new groups.

Course Requirements

Prelab flowcharts/Prelab assignments:

There will be a short prelab assignment most weeks that includes a foundational question or two and a flowchart drawing task. These assignments are designed to ensure you are prepared and thinking about the lab experience PRIOR to attending lab. We believe that actively engaging with the lab material prior to class is a better learning tool than quizzing. Time is short in the lab and preparation will allow us to focus on the hands-on more quickly. Instructions for these assignments will be provided during the 1st week of lab.

The most common types of questions require you to draw out an experimental protocol, make predictions, formulate a hypothesis, interpret data or explain the outcome of an experiment. The information to answer these questions and tasks will come from the prelab videos and lab handouts provided on Brightspace. Therefore, watching the videos and reading the lab before your meeting will not only enhance your laboratory experience but will also be beneficial to your grade. Prelab assignments will be available online when the Brightspace module unlocks. Prelab assignments must be turned in electronically via Brightspace Dropbox or on paper at the beginning of lab each week. Late submissions will be accepted but will lose 33% of the total credit each day. If you miss an assignment, you must have a valid excuse to be excused from the grade.

Written Assignments:

The written assignments for this course will include brief reports in a written format stressing different aspects of scientific processes. **Most of these will be group assignments**. Your final grade on some of the written assignments may be weighted by your group members' assessment of your contribution to the final product.

Professionalism:

Your choices can affect the learning experiences of other students in the class as well as your own. Please arrive on time, stay through class, turn off your cell phone (including vibration mode), and use laptops and other technology only for class-related activities. It is understood that the continuing development of new technology can be beneficial to the process of education. For this reason, laptops and smartphones are permitted for note-taking and viewing classroom materials such as weekly lab handouts. Unacceptable classroom use of technology includes, but is not limited to social media websites, e-mail, and cell phone photography (except as required for lab activities). Students that are viewed as distracting or disruptive may be asked to leave the classroom.

Grading

Grades will follow the following point distribution:

>=93%, A;	77-79%, C+
90-93%, A-	73-77%, C
87-89%, B+	70-72%, C-
83-86%, B	60-69%, D
80-82%, B-	<60%, E

Under most circumstances, there will be no adjustment to your grades. There is no quota for particular letter grades. Helping your classmates in the lab (not to be confused with cheating) will not hurt your grade, and is instead more likely to improve your grade. Final grades will be rounded to the nearest whole percentage point at the end of the semester (87.2% -> 87%, 89.7% -> 90%), while grades for assignments themselves will NOT be rounded.

Grades will be based on the following system:

1.	Flowchart assignments, prelabs, and individual assignments	35%
2.	Reports and group assignments	65%
	Total	100%

Important Policies & Responsibilities to maintain a respectful environment:

Student Accommodations

SUNY Geneseo is dedicated to providing an equitable and inclusive educational experience for all students. The Office of Accessibility will coordinate reasonable accommodations for persons with documented physical, emotional, or cognitive disabilities, as well as medical conditions related to pregnancy or parenting. Students with letters of accommodation should submit a letter to each faculty member at the beginning of the semester and discuss specific arrangements. Please contact the Office of Disabilities https://www.geneseo.edu/accessibility-office

- Student responsibility: Please submit your letter of accommodations to your faculty instructor at the beginning of the semester and make an appointment to discuss arrangements.
- Instructor responsibility: We are committed to working with you to figure out how to create a just learning environment while meeting the learning outcomes of the course. Unless you communicate otherwise, we will keep all accommodations confidential.

Geneseo's Library offers frequent workshops to help students understand how to paraphrase, quote, and cite outside sources properly. These sessions are meant to educate about the importance of using original ideas and language, and how to incorporate paraphrases and quotes into writing. The complete list of library workshops can be found at www.geneseo.edu/library/library-workshops. Academic dishonesty includes cheating, knowingly providing false information, plagiarizing, and any other form of academic misrepresentation. College policies and procedures regarding academic dishonesty are available at www.geneseo.edu/handbook/academic-dishonesty-policy.

Communication.

Everyone is expected to check their email at least twice a day, and use email, Brightspace, or other mutually-agreed upon methods to communicate with each other. Please make sure to set Brightspace notifications to send you emails with updates, and set aside time to read these so you don't miss anything important. You can also meet with professors and teaching assistants in drop-in hours or by appointment. E-mail is usually the fastest way to get in touch with us. Because our jobs require that we deal with many students, **please include your name, *section #* and Biol. 118 in all e-mails sent to us.**

Uphold the Student Code of Conduct.

Plagiarism and other forms of academic dishonesty (cheating, turning in another student's work as your own) is not tolerated at SUNY Geneseo. Consulting with other students for individual assignments is fine, but you must each produce original written answers or code (no copying and pasting). Check with the instructional team if you are not sure where the line between collaboration and copying stands on any assignment. Evidence of plagiarism and/or academic dishonesty is grounds for a score of '0' on any assignment and further action including notifying the department chair, which can result a report filed with the Dean of Students. For full details of the Student Code of Conduct, please see the Student Handbook.

Academic Integrity & Plagiarism

Geneseo's Library offers frequent workshops to help students understand how to paraphrase, quote, and cite outside sources properly. These sessions are meant to educate about the importance of using original ideas and language, and how to incorporate paraphrases and quotes into writing. The complete list of library workshops can be found at www.geneseo.edu/library/library-workshops. Academic dishonesty includes cheating, knowingly providing false information, plagiarizing, and any other form of academic misrepresentation. College policies and procedures regarding academic dishonesty are available at www.geneseo.edu/handbook/academic-dishonesty-policy.

Respect copyright and licensing.

All materials used in this course, including lectures, slides, videos, and handouts, have specific licensing and copyright restrictions that identify how they can be used, distributed, and adapted. The original work created by me, your instructor, is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. Materials created by other authors have their own licensing and copyright restrictions. Please do not violate the restrictions we have put on our intellectual property. This includes, but is not limited to, transferring files to websites such as StudyBlue and Course Hero, storing old tests in sorority/fraternity test banks, and passing on assignments to friends who may take the course in the future. Be aware that UUP (Union of University Professionals, the union representing faculty on this campus) is seeking to take legal action against groups who violate copyright, and that posting or selling copies of materials to such groups may put a student in legal jeopardy.

Exceptions:

Policies can have exceptions! When problems arise in completing class work, please make an appointment to talk with us. Sometimes it is possible to identify additional options or solutions that do not appear here.

BIOL 118: General Biology Laboratory I Fall, 2025- Laboratory schedule: rev. 08/12/25

Week #	Week of:	Laboratory	Notes
1	Aug. 25	Intro to Biol 118 Safety and Social Group Contracts.	• **Prelab videos will be posted to Brightspace by 8:00 AM on Monday mornings (often earlier). Viewing is required before your lab meeting.**
2	Sept. 1	Biomolecules – Dismantling a cell	• **Lecture tie-in** • **CV due**
3	Sept. 8	Scientific Observation I – skulls	
4	Sept. 15	Scientific Observation II – Termite Behavior	• Living organism lab
5	Sept. 22	Computer Fundamentals for Biology – Filesystems, Excel, and Vernier.	• Laptop required
6	Sept. 29	Diffusion I – Experimental Design	• Laptop required
7	Oct. 6	Diffusion II – Independent Experiment	• Laptop required
8	Oct. 13	**Fall Break** – no labs this week	• *n/a*
9	Oct. 20	Daphnia I – Experimenting with model organisms.	• Living organism lab
10	Oct. 27	Daphnia II – Independent Experiment	• Living organism lab
11	Nov. 3	Mendelian Genetics	• **Lecture Tie-in**
12	Nov. 10	Using R for Biological Data Analysis I	• Laptop required
13	Nov. 17	Using R for Biological Data Analysis II	• Laptop required
14	Nov. 24	**Thanksgiving Break** – no labs this week	• *n/a*
15	Dec. 1	Hardy-Weinberg	• **Lecture Tie-in**