BIOL 200 LAB Syllabus, Spring 2024

200-02 Tue Lab
Jason Gleditsch
Science Center A140
440-775-8547
jgledits@oberlin.edu
Drop-in Student Hours:
TW 11am–12:30pm, or
by appointment

200-03 Wed Lab
Darla French
Science Center K230
440-775-6632
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Drop-in Student Hours:
T 11am–12pm, WF 10-11am,
or by appointment:
darlafrench.youcanbook.me/

Lab Coordinator
Angie Roles (she/her)
Science Center A134
443-695-1680
aroles@oberlin.edu
Drop-in Student Hours:
MWF 10–11am, or
by appointment

Laboratory Class Meetings

Lab: T or W, 1:30-4:20pm in Sci Ctr K119
Bring your laptop to all lab meetings, as most assignments will be submitted electronically.

Course Objectives

Students completing this course will be able to:

- appreciate how scientists collect and use data to study topics such as phylogenies, inheritance, adaptation, genetic drift, population ecology, community ecology, and ecosystems.
- create models for basic ecological concepts and understand how models are used to predict outcomes of biological phenomena.
- apply all parts of the scientific method to ecological and evolutionary questions.
- formulate a hypothesis with testable predictions.
- interpret graphical presentations of empirical relationships and theoretical models.
- use R to create graphs and carry out statistical analyses of data.
- analyze and communicate the results of an experiment.

Statement on Accessibility and Inclusion

We aim to make this course accessible to and inclusive of all students. If you find yourself unable to fully access the course in any way, we encourage you to contact your lab instructor to discuss possible solutions to address your needs. If you have a disability that may impact your work in this class and for which you may require accommodations, please see your lab instructor and the Office for Disability and Access, Mudd Center Room 205 (440-775-5588; ODA@oberlin.edu; https://www.oberlin.edu/disability-access). All discussions between you and members of that office remain confidential, and your instructor will only receive information that describes the type of accommodation needed.

Attendance

All grade contracts specify that attendance and being on time for all lab periods are required. Being late or absent will lower your final grade in this course, with repeated infractions weighing more heavily. You must attend the lab section on the day for which you are enrolled. Under rare circumstances, an unavoidable conflict may arise.

- For conflicts predictable in advance, notify your lab instructor AS SOON AS you are aware of the conflict.
- For unexpected illnesses, notify your lab instructor AS SOON AS you SUSPECT an illness might interfere with your attending lab.

Grading

Your grade in this lab is part of your overall BIOL 200 course grade, which will be awarded based on the successful fulfillment of your course grade contract, developed with your instructors at the beginning of the semester. Details will be explained the first day of lecture (also see lecture syllabus). For laboratory assignments requiring revision, the revised assignment is due one week after return of the original.

Honor Code

Lab assignments will be given under the Honor System as described at https://www.oberlin.edu/dean-of-students/student-conduct/academic-integrity. The application of the Honor System to laboratory work and lab assignments will be described during the first laboratory meeting. You are NEVER permitted to use or look at any material from previous semesters or to share material with others who have not taken this course.

Required Laboratory Materials

All materials will be provided weekly by instructors, posted to the course Blackboard site, usually on Fridays of the week prior to the lab. Laptops will be useful for many lab meetings.

Lab Schedule

Week	Dates	Topics/Exams Coverage
1	Feb 06–07	Lab 1. Tree of Life
2	Feb 13–14	Lab 2. UPGMA Tree-Building
3	Feb 20–21	Lab 3. Inheritance with Flies
4	Feb 27–28	Lab 4. Hardy-Weinberg with Flies
5	Mar 05–06	Lab 5. Population Genetics
6	Mar 12–13	Lab 6. Molecular Phylogenetics
7	Mar 19–20	NO LAB
	Mar 26–27	NO LAB – Spring Break
8	Apr 02–03	Lab 7. Adaptive Morphology
9	Apr 09–10	Lab 8. Invertebrate Diversity – Field
10	Apr 16–17	Lab 9. Invertebrate Diversity – Analysis
11	Apr 23–24	Lab 10. Crayfish Population Ecology – Field
12	Apr 30–May 01	Lab 11. Crayfish Population Ecology – Analysis
13	May 08–09	Lab 12. Ecological Modeling