

Biology 398
Biology Laboratory Pedagogy
Course Syllabus – Fall, 2021
Monday, 5:30 – 6:20 PM
ISC 101

Instructors:

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Course description & Teaching Philosophy:

Students enrolled in Biology 398: Biology Laboratory Pedagogy, will be concurrently enrolled in Biol 398: Biology Lab Instructor: General Biology, Human Biology, or Contemporary Biology. The pedagogy course will award one credit of pedagogy seminar. This course will provide a framework for preparing to teach introductory Biology labs and will provide discussion and class activities to cultivate reflective teaching practice. Classes will model appropriate instructional techniques for use in Biology laboratory classes. In addition, through readings and class discussion, we will explore relevant pedagogical issues.

Class Meeting Times and Requirements:

It is expected that all students will attend class every week during the semester for which labs are in session. A general schedule of topics for discussion can be found on the last page of this syllabus.

Text and materials:

Lab exercises and ULI preparation guides for Biol 398 will be available on-line. While no textbooks are required for the course, an introductory biology textbook is often useful. In addition, for our seminar class meetings we will use journal and web-based articles that will be available through Canvas or handed out ahead of time. Most of these will be quite short and are intended to stimulate reflection.

Evaluation:

1.	Online discussion of readings	40%
2.	Class participation	40%
3.	Teaching Observation	20%

1. **Discussion.** Most weeks there will be a short reading to stimulate reflection and discussion. Two students each week will be assigned to write a posting on the discussion board in Canvas based on that reading or another prompt provided by the instructor (approximately

2 double-spaced page). All other students will use the first discussion board post to write a meaningful response. Follow-up posts should discuss and share ideas; Do you agree with the first poster's interpretation of the reading? Why? Do you disagree? Why? Do you have an experience as a student or instructor that relates to this? Explain and reflect. What did you do in a similar situation? What would you have done differently?

All responses and replies must be logged prior to a set deadline to get credit. Elements of the online discussion will be utilized to guide activities and discussions during class. Therefore, participation on the discussion board is necessary to be adequately prepared for class! We are looking for evidence that you are thinking critically and reflectively about your experiences as a teacher and as a learner this semester. While we will not grade your reflection, we may make suggestions for engaging in deeper analysis.

2. **Class participation** will be assessed by direct observation during the pedagogy meetings, and by short writing assignments done either in class or outside of class.
3. **Teaching observation.** Once during the semester, ULIs taking the pedagogy course will visit and make observations of the ULIs from another course in Biology (e.g. ULIs from Biol 116: General Biology Lab will visit and observe the ULIs from Biol 104/106: Human/Contemporary Biology Laboratory). These observations will form the basis for discussions in class that focus on student motivation, teaching strategies, and class preparation. A reflective statement will be completed to accompany each student's observation notes.

Grading scheme:

In order to receive an A, you must: (1) attend and participate enthusiastically in Monday night class meetings, (2) be consistently punctual and well-prepared for lab as well as class meetings, (3) turn in excellent assignments on time, (4) show evidence of reflective teaching practice, including efforts to improve based on your reflection and feedback from others, (5) show evidence of careful, fair and prompt assessment of students, (6) keep accurate records, maintain appropriate security and confidentiality, and provide readable summaries of grades to faculty supervisor or course coordinator when required, (6) maintain good communication with students throughout lab including initiating conversations with students, (7) work well with your faculty supervisor and lab assistant. You will receive a B if there are serious problems with one category or lesser problems in two categories. If you exhibit serious problems in two categories or minor problems across several categories you will receive a C. If you have serious problems in more than 2 categories, you will receive a D. If you are seriously negligent, or if you have problems in 3 or more categories you will fail.

Tentative schedule of topics:

See the Biology 116 syllabus for additional information about the schedule of laboratories in Biology 116. That schedule will govern our Monday night meetings. The schedule below emphasizes pedagogical topics and centers on our seminar discussion for each week. In part, we will respond to your questions and interests you express during the seminar sessions. Please be aware that this schedule is very loose and will change over the course of the semester as topics and issues arise from experiences in the classroom. Teaching is an endeavor that requires flexibility and adaptation to succeed. As you will see during the semester, your class will like a living organism that reacts to new situations in unpredictable ways. Moreover, your section will differ from other sections in demographic makeup, attitude, aptitude, and general behavior. This class *will* adapt to your changing needs throughout the semester and *will not* adhere to a rigid schedule that may not meet your needs as learning instructors.

Course Goals:

This course has two major main objectives; the primary objective is to teach the Biol 106/116 curriculum to one section of Biol 106/116 via direct instruction, weekly office hours, and graded assignments, the second is to develop leadership and management experience that will make you competitive for post-graduate education and career opportunities.

Learning Outcomes for BIOL 398:

Upon completion of this course, through the evaluation methods described above, students will:

1. Utilize strategies to guide students to an understanding of biological concepts.
2. Utilize personal reflection to modify their instructional approaches.
3. Recognize the role of the laboratory as a collaborative learning community.
4. Understand the learning objectives of the Biology Lab course they teach.

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 physical, emotional, or cognitive disabilities to ensure equal access to academic programs, activities, and services at Geneseo. Students with letters of accommodation should submit a letter to each faculty member and discuss their needs at the beginning of each semester. Please contact the Office of Accessibility Services for questions related to access and accommodations.

Office of Accessibility Services

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www.geneseo.edu/accessibility-office

Discussion Board Primary Reflection Assignments:

Each week a reading will be posted on Canvas that ALL students are required to read. Each week that a reading is assigned, two “primary respondents” will write a 1-2 page response and reflection based on the assigned reading on the Discussion Board thread created for the reading.

Following the post by the primary respondent, all other students will respond to the initial post and comment on thoughts that they agree or disagree with, and why. If another part of the reading was formative for you but was not discussed by the primary respondent, this would be the place to discuss it. Follow-up posts do NOT have a length requirement, but must be of substance and show that each student has critically read the paper. The instructors will read the posts and draw upon them to help guide the class discussion on Monday afternoon.

Class Date:	Discussion of Reading #	Primary Respondent	Assigned Reading	Primary Post Date
August 30	First Meeting	Keely G.	(1) Students Teaching Students	Sept. 3
Sept. 6	No Meeting		---	---
Sept. 13	1	Cole J.	(2) How to Get the Most out of Studying	Sept. 17
Sept. 20	2	Emma P.	(3) Flunking Exams	Sept. 24
Sept. 27	3	Carlie S.	(4) Group Work	Oct. 1
Oct. 4	4	Keely G.	(5) Motivating the Unmotivated	Oct 8.
Oct. 11	No Meeting	Fall Break	---	---
Oct. 18	5	Cole J.	(6) Asking Questions to Improve Learning	Oct. 22
Oct. 25	6	Emma P.	(7) Increasing Student Participation	Oct.29
Nov. 1	7	Carlie S.	(8) Grading Lab Reports	Nov. 5
Nov. 8	8	---	--	---
Nov. 15	No Meeting	---		---
Nov. 22	No Meeting	Thanksgiving Break	--	---
Nov. 29	No Meeting	---		---
Dec. 6	No Meeting	---	---	---