

**BIOLOGY 349: Principles of Microbiology, Fall 2021
LAB SYLLABUS**

Section 02	Tues 11:00 - 12:50 pm	ISC 302
Section 03	Tues 2:00 – 3:50 pm	ISC 302
Section 04	Thurs 11:00 - 12:50pm	ISC 302

Instructor: Robert Feissner

Office: ISC 356

Email: 585-245-5022

Office Hours: Mon, Wed, Fri 11:30 - 12:30 (virtual, or in person by appointment), Friday by appointment only.

Course Description

The structure, cultivation, physiology, ecology, and importance of microorganisms (including bacteria, yeasts, and viruses) are studied. Laboratory activity complements lecture material. Prerequisites: BIOL 222 or BIOL 271.

Required Texts and Materials

None, all laboratory materials are available on Canvas. Students are expected to print our laboratory materials before coming to class, and to check Canvas for materials.

Health and Wellbeing in the COVID-19 era

The changes brought on by COVID-19 have impacted us all in a number of ways, and will continue to do so at various times and to varying degrees during the upcoming semester. 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. Because the learning environment will be different than it has been in the past, the indicators that usually let you know something is wrong may not be as clear to you or those around you as they would be during a typical semester. 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. The pandemic is affecting faculty as well as students and creating demands that would not be present in an ordinary semester. Please be patient (and feel free to send me a 'WTH, Feissner' e-mail; I will not be offended) if I am slow responding to an email or take extra time to grade an assignment. You will never suffer any disadvantage in the course because of delays on my part.

This is a Face-to-face Lab

I 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. The COVID-19 pandemic presents challenges to in-person learning, but by working together we can make this a safe experience.

It is essential that all students in in-person classes follow some basic processes to help keep themselves, other students, and our faculty and staff safe. Please incorporate these essential health and safety measures into your normal routine, consider the ways that your actions may affect the health and wellbeing of those around you, and try to approach this semester with a spirit of empathy and compassion.

Attendance and Public Health

In the context of the COVID-19 pandemic, it is vital that we all do what we can to protect the health and safety of each other. If you are feeling unwell on a day that class meets in-person, do not attend. Remember that it is better to stay home if you are not feeling well than to attend class and risk spreading illness to others. Throughout the semester, please be proactive in communicating about absences and contact the Dean of Students if you expect to be out for an extended period of time. Rest assured that there will be no penalty for missing class and that I've designed our course so that there's a path for you to make up any learning that takes place in a class meeting you miss.

Face-Masks and Other Behavior in the Classroom

Face masks are required in all instructional spaces (including classrooms, lecture halls, and laboratories) and all common areas including residence halls and academic buildings. If you forget your mask, please be sure to pick up a disposable one before entering the classroom. Masks must be worn for the duration of class. If you do not have a mask or are unwilling to wear one, you will be asked to leave the classroom. I cannot safely hold class if all students are not wearing face masks.

If you would feel more comfortable or if my teaching could be more accessible if I wear a clear face mask, please let me know as soon as possible. Students who have concerns about wearing a face mask due to a documented disability need to contact the Office of Accessibility Services (access@geneseo.edu) to request reasonable accommodations

Grading

This is not a stand-alone course. The grades from your lab will be recorded in the gradebook for your lab section, but will also be transferred into your lecture course. The combination of your lab and lecture grades will be the basis of your final grade in Biol 349. Lab grades will be displayed in the gradebook as percentages. Your Lab grades represent 35% of your final grade in Biol 349.

Lab Grades

Lab Notebook	10 pts
Presentation	25 pts
Group Lab Reports (2@25)	50 pts
Techniques Assessments	25 pts
Biochemical Tests Assignment	5 pts

Grade disputes must be initiated within one week from when the assignment was handed back.

Tips for Success

Laboratory activities will be posted on Canvas and you are required to read over them before coming to lab.

One of the components of success in the lab is keeping a good lab notebook. I will post guidelines for your lab notebooks, and assessment of lab notebooks will be done at random, so you'll need to keep up with your notebook throughout the semester.

Practical Assessment of Skills

To be a good microbiologist, there are some basic skills (aseptic technique, media making, plate streaking, microscopy, etc) that you need to learn, and these skills will be necessary in almost any microbiology or molecular biology lab. During a normal non-pandemic semester, you would demonstrate your mastery of these skills in a lab practical exam at the end of the semester. With the uncertainty of in-person classes this semester, I am NOT going to give you a final practical this semester. Instead, I will establish a checklist of skills and methods for which you will be required to demonstrate your mastery. You will be asked to demonstrate your technical skills, at your own pace, throughout the semester. You can ask to be assessed at any time and will get as many chances as needed to meet each objective. You will get the same grade if it takes you one attempt or ten to demonstrate your abilities in the lab. If we have any down time in lab, use this time to practice skills, or you can schedule some extra time outside of lab (for example during office hours) to practice.

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 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

Erwin Hall 22

(585) 245-5112

access@geneseo.edu

www.geneseo.edu/accessibility-office

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.

Tentative Schedule (subject to change at instructor's discretion)

It is expected that you check Canvas at the beginning of each week for lab materials and instructions).

Week	Date	Subject
1	(T) 08/31, (R) 09/02	Check-in and Intro; Aseptic Technique; Making Media
2	(T) 09/07, (R) 09/09	Isolating pure cultures; isolation of unknown bacterium Inoculate Purple non-sulfur cultures
3	(T) 09/14, (R) 09/16	Introduction to Microscopy & Staining, purification of unknown bacterium
4	(T) 09/21, (R) 09/23	PCR, Gram Stain
5	(T) 09/28, (R) 09/30	Electrophoresis, Gram Stain, KOH test continued.
6	(T) 10/05, (R) 10/07	Methods to enumerate bacteria / Spectrometry and dilution series Lab notebook checks begin
7 (Fall Break)	(T) 10/12, (R) 10/14	NO LAB - Fall Break
8	(T) 10/19, (R) 10/21	Bacterial Growth Curve, Purple Nonsulfurs Group Lab Report 1 due (topic: Gram Stain & KOH test)
9	(T) 10/26, (R) 10/28	Biochemical Activities of Bacteria #1
10	(T) 11/02, (R) 11/04	Biochemical Activities of Bacteria #2
11	(T) 11/09, (R) 11/11	Finish Biochemical tests on unknowns, tentative ID of unknown & work on biochemical tests assignment, Isolation of antibiotic producers from soil Biochemical tests assignment due
12	(T) 11/16, (R) 11/18	Kirby Bauer Antibiotics Lab
13 (Thanksgiving)	(T) 11/23, (R) 11/25	No lab – Thanksgiving Break
14	(T) 11/30, (R) 12/02	Bioinformatics Lab (BLAST) - Final ID of unknowns
15	(T) 12/07, (R) 12/09	Presentations (topic: unknown identification); Group lab report 2 due (topic: Kirby Bauer) Microscopy contest images due