BIOLOGY 349: Principles of Microbiology, Fall 2019
LAB SYLLABUS

Section 02 Tues 11:00 - 12:50 pm, ISC 302
Thurs 11:00 - 11:50 am, ISC 302

Instructor: Robert Feissner
Office: ISC 356
Email: 585-245-5022
Office Hours: Mon, Wed, Fri 11 - 12:00 and by appointment.

Section 03 Tues 02:00 – 03:50 pm, ISC 302
Thurs 12:00 – 12:50 pm, ISC 302

Instructor: Logan Peoples
Office: ISC 334
Email: 585-245-5330
Office Hours: Mon, Wed, Fri 12 - 1:00 and by appointment.

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
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.

Grading
Lab Grades

Lab Notebook	10 pts
Presentation	20 pts
Individual Lab Report (1)	25 pts
Group Lab Reports (2)	50 pts
Lab Practical	25 pts
Biochemical Tests Assignment	5 pts

Make ups are NOT administered except under special circumstances (such as significant medical or family issues). No other excuses (vacations, weddings, travel, etc) will be accepted.

Attendance. Please note: unexcused absences from lab will result in a 10 pt deduction from your overall BIOL 230 grade. If you have ≥2 unexcused absences, you will get a zero (0) for the lab section of the course.

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.

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. You'll have two opportunities to demonstrate your mastery of these skills in a lab practical. The first lab practical we do will be shorter, and will not be graded. This is meant to be a learning experience, and to help you prepare for the second lab practical, which occurs at the end of the semester. 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.

Students with Disabilities
SUNY Geneseo will make reasonable accommodations for persons with documented physical, emotional, or cognitive disabilities. Accommodations will be made for medical conditions related to pregnancy or parenting. Requests for accommodations including letters or review of existing accommodations should be directed to the Office of Disability Services in Erwin 22 (disabilityservices@geneseo.edu or 585-245-5112). Students with accommodation letters should contact their faculty members as early as possible in the semester to discuss specific arrangements. Additional information on the Office of Disability Services is available at www.geneseo.edu/dean_office/disability_services.

Academic Dishonesty & Plagiarism
Students are expected to adhere to the University's policy on academic dishonesty and plagiarism, located in the student handbook. Academic dishonesty and plagiarism have serious consequences, and if you're struggling in class, please ask for help rather than resort to academic dishonesty! Academic dishonesty will result in a zero on the assignment or exam. In addition, a report will be filed to the department chair and Dean of the College, and a record of academic dishonesty will be placed in the student's file at the Dean of Students Office.

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) 08/27	Check-in and Intro; Aseptic Technique; Making Media
	(R) 08/29	Enrichment cultures (Winogradsky, Purple Nonsulfurs)
2	(T) 09/03	Isolating pure cultures; isolation of unknown bacterium
	(R) 09/05	Isolating pure cultures
3	(T) 09/10	Introduction to Microscopy & Staining
	(R) 09/12	Isolation of unknown; PCR

4	(T) 09/17 (R) 09/19	Gram Stain, KOH test Viewing bacterial structures (endospores, flagella); Winogradsky columns Lab notebook checks begin
5	(T) 09/24 (R) 09/26	Methods to enumerate bacteria Methods to enumerate bacteria
6	(T) 10/01 (R) 10/03	Bacterial Growth Curve; Purple Nonsulfurs Bacterial Growth Curve
7	(T) 10/08 (R) 10/10	Biochemical Activities of Bacteria Biochemical Activities of Bacteria; Individual Lab Report 1 due (topic: Gram Stain & KOH test)
8	(T) 10/15 (R) 10/17	No lab – Fall Break Biochemical Tests - Unknowns
9	(T) 10/22 (R) 10/24	Finish Biochemical tests, tentative ID of unknown & work on biochemical tests assignment Isolation of antibiotic producers from soil; isolation of yeasts; Biochemical tests assignment due
10	(T) 10/29 (R) 10/31	Practice Lab Practical; isolation of antibiotic producers Bioinformatics Lab (BLAST)
11	(T) 11/05 (R) 11/07	Kirby-Bauer tests; isolation of antibiotic producers; isolation of yeasts Group Lab Report 1 due (topic: growth curve) Kirby-Bauer tests
12	(T) 11/12 (R) 11/14	Food Microbiology; Biofilm lab set up Food Microbiology
13	(T) 11/19 (R) 11/21	Biofilm Lab; Chemotaxis lab; work on presentations & report Biofilm lab; Chemotaxis lab
14	(T) 11/26 (R) 11/28	**NO LAB HERE YET – workday or no lab?** Group lab report 2 due (topic: food microbiology or Kirby Bauer) No lab – Thanksgiving Break
15	(T) 12/03 (R) 12/05	Final Lab Practical Presentations due (topic: unknown identification); Microscopy contest images due