

Microbiology Lab Syllabus – spring 2024**W 6:00 – 8:55 PM; Room 491; Instructor: Prof. Pumpuni*****Last day to drop with tuition refund – Feb 13; to drop without grade penalty – March 28***

LAB	DATE	EXERCISES & TOPICS	Lab Reports & quizzes
1*	1/31	Lab Policies / Basic Microbiology lab safety (xi) Ex. 6 Ubiquity of Bacteria (pg49) Ex. 1 Bright-field Microscope (pg3)	
2*	2/7	Complete Ex. 6 Ex. 8 Aseptic Technique (pg65) Ex. 9 Pure Culture Technique (pg75) Ex. 10 & 11 Smear Preparation & Simple Stains (pg89-100) (use test tube material from Ex. 6)	
3*	2/14	Ex. 14 Gram stain (pg111) Ex. 12 Negative stain (pg101) Ex. 15. Spore stain (pg119 – prepared slides) Ex. 16 Acid fast stain (prepared slides)	Turn in Ex. 6 (10 points) Quiz on Ex 1, 8, 9, 10 & 11 (20 points)
4*	2/21	Ex. 28 Lethal Effects of UV light (pg203) Ex. 31 Antimicrobial Sensitivity Testing (pg221) Ex. 32 Evaluation of Antiseptics and Disinfectants (pg235) Bring some disinfectants for testing Lecture Exam #1 – held in lab.	Quiz on ex 12, 14, 15 and 16 (20 points)
5*	2/28	Completion of Ex 28, 31 and 32 Ex. 34 & 36 Morphological Study of Unknowns Ex. 37 Bio-Oxidations (selected tests)	Submit report on Lab 28, 31 and 32 next week (20 points) Gram stain & cell shape of unknown – 5 pts
6*	3/6	Examine and record results from Ex. 28, 31, 32 in your lab notebook. <u>Set up selected tests from Ex. 37 & 38:</u> Set up Enterotube II – pg 311 Ex. 21 Determination of bacteriophage titer (pg163)	
	3/13	Spring Break	
7*	3/20	Examine and record results from Ex. 37 & 38 Completion of Ex 21 Lecture Exam #2	
8*	3/27	Set up bacteria transformation experiment. Ex. 44. Bacteriological examination of water (pg325) (Sampling Four Mile Run stream) Parasitology Lab (supplemental material) <i>Video – “Parasites Eating Us Alive”</i>	Quiz on ex 34, 36, 37 & 38 (quiz is tests set up - 20 points) Submit Identification of unknown Lab report (25 points)
9*	4/3	Continuation of water testing (Ex44) Read results of bacteria transformation experiment Parasitology	

10*	4/10	Epidemiology / ELISA testing / Streptococcus lab / Simulation experiments Parasite specimens Lecture Exam #3	Turn in report on Bacteria transformation (p375-6) Report on water testing (20 points)
11	4/17	Student Presentations	
12	4/24	Final lab exam (100 points)	
	5/1	Lecture Exam #4	

* *All labs require the use of gloves and eye protection goggles*

* You cannot miss a lab – the penalty is loss of quiz / assignment points for that lab (no exceptions)

**Instructor reserves the right to make changes to lab schedule*

Required Text: Benson's Microbiological Applications

Materials (per student):

Small plastic bottle of hand washing soap
Felt tip marker with sharp tip that marks on glass and plastic
A box of microscope slides
A box of gloves (please **no latex gloves**)
Protective goggles

Grading: Lab makes up 30% of your grade and is determined on the basis of the following:

Final lab exam	100 points
Lab quizzes	70 points
Lab reports	70 points
Unknown Bacteria (identification & lab report)	30 points
Presentation	30 points
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Total Lab Points	300 points.

If you miss more than two labs, you will not be able to complete the required material and you will be dropped from the course.

ADDITIONAL POLICIES

1. Your lab grade accounts for 30% of your total grade in the course: your work for each lab will be evaluated by a quiz, lab report, or another assignment as directed by your lab instructor. **YOU WILL NOT BE ALLOWED TO TAKE A LAB QUIZ, OR TURN IN A LAB ASSIGNMENT, IF YOU WERE NOT PRESENT FOR THAT SPECIFIC LAB.**
2. There will be **NO** make up labs. You are expected to be on time for lab. You cannot perform a lab exercise if you are not present for the pre-lab introductory explanations. If you are more than Ten (10) minutes late for a lab, **YOU WILL NOT BE PERMITTED TO PARTICIPATE IN THE CLASS FOR THAT DAY**, and it will count as an absence.
3. Special Needs and Accommodations: Please address with the instructor any special problems or needs at the beginning of the semester. If you are seeking accommodations based on a disability, you must provide a Disability Data Sheet, which can be obtained from a counselor at Student Services in the Bisdorf Bldg.

4. Cheating on quizzes or on laboratory work where you are expected to do your own work is not acceptable. Anyone caught cheating on a quiz in the lab will automatically fail the lab course.
5. Students are required to wear a lab apron when in the lab. This applies no matter what lab is being performed. Shoes with closed toes are required at all times.
6. You will be asked to leave the lab for the following reasons:
 - If you are 10 minutes or more late for the lab class
 - If you are wearing sandals or open-toed shoes
 - If you are not wearing gloves and goggles as required for the lab
 - If your behavior is inappropriate or endangers others

THERE WILL BE NO EXCEPTIONS TO THESE REGULATIONS. If you are asked to leave the lab, it will count as an absence.