Microbiology Lab Syllabus – spring 2023
W 6:00 – 8:55 PM; Room 491; Instructor: Prof. Pumpuni
Last day to drop with tuition refund – Feb 2; to drop without grade penalty – March 25

LAB	DATE	EXERCISES & TOPICS	Lab Reports & quizzes
1*	1/25	Lab Policies / Basic Microbiology lab safety (xi) Ex. 7 Ubiquity of Bacteria (pg55) Ex. 1 Bright-field Microscope (pg3)	
2*	2/1	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. 7)	
3*	2/8	Ex. 14 Gram stain (pg111) Ex. 12 Negative stain (pg101) Ex. 15. Spore stain (pg119 – prepared slides) Ex. 16 Acid fast stain (prepared slides)	**Complete Ex. 7 (10 points)** **Quiz on Ex 1, 8, 9, 10 & 11 (10 points)**
4*	2/15	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*	2/22	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*	3/1	Examine and record results from Ex. 28, 31, 32 in your lab notebook Set up selected tests from Ex. 37 & 38: Set up Enterotube II – pg 311 Ex. 21 Determination of bacteriophage titer (pg163)	
7*	3/8	Examine and record results from Ex. 37 & 38 Completion of Ex 21 Set up Bacterial Transformation experiment (supplement)	**Quiz on ex 34, 36, 37 & 38 (quiz is tests set up - 30 points)**
	3/15	*Spring Break*	
8*	3/22	Read results of transformation experiment Ex. 44. Bacteriological examination of water (pg325) (Sampling Four Mile Run stream) Parasitology Lab (supplemental material) *Video – "Parasites Eating Us Alive"*	**Submit Identification of unknown Lab report (25 points)**
9*	3/29	Continuation of water testing (Ex44) Lecture Exam #2 – held in lab	**Lab report on Ex 21 next week (20 points)**

10*	4/5	Epidemiology / ELISA testing / Streptococcus lab / Simulation experiments	**Report on water testing (20 points)** **Lab report on transformation experiment**
12	4/19	Student Presentation	
	4/26	Final lab exam (100 points)	
	5/3	Lecture Exam #3	

* ***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	80 points
Lab reports	80 points
Unknown Bacteria (identification & lab report)	30 points
Presentation	30 points
Total Lab Points	320 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.