

**LABORATORY SYLLABUS**  
**Microbiology**  
**BIOL 210**  
**Spring 2020**  
**Prof. Lester's Version**

DATE	TOPIC	EXERCISE #
<b>January</b>		
27	Syllabus, Lab regulations and safety rules; Environmental plate; Microscope; Survey: algae, protozoa, yeast, etc, <b>Lab Basics (HW)</b>	3-1, 2-1
29	Sterile technique; preparation of smears; simple stains Transmission of microorganisms	1-4, 3-1, 3-3, 3-4
<b>February</b>		
3	Go over environmental plate; micropipettor training; Begin Gram stain	2-2, 3-6
5	Gram stain continued	3-6 (Grade Sheet)
10	Acid-fast, spore stains	3-7, 3-9
12	Negative stains; Motility <b>Lab Quiz 1</b>	3-5; 3-8, 3-10, 11; 5-24
17	Respiration (nitrate, catalase),	5-4,5-6
19	Growth Patterns; micropipettor training; Practice staining.	2-3, 2-4
24	<b>Morphological unknown</b> ***Due Same Day***	3-12; (Grade Sheet)
26	Bacterial Transformation	8-3
<b>March</b>		
2	Media: Selective, differential; Temperature, oxygen requirements	4-1, 4-3, 4-4, 4-5; 2-7, 2-8
4	Fungi; UV	3-3, 2-12, 8-2
9	Complete all labs above; Study for practical <b>Lab Quiz 2</b>	
11	<b>PRACTICAL #1</b>	
16-18	<b>SPRING BREAK</b> ☺☺☺	
23	<b>Streak plates (Grade sheet)</b> / Biochemicals I: starch, lipid, protein	1-5, 5-10, 12, 14
25	Biochemicals II: indole, MR/VP, citrate, CHO, H <sub>2</sub> S, urease	5-2,3,7,12, 15,18
<b>March / April</b>		
30	Complete biochemicals; Standard Plate Count	Web Handout; 6-1
1	Start unknown #2 (staining/streaking); <b>I will provide the Handout</b> (9-1,2,3,4=general idea)	
6	Continue unknown. <b>Lab Quiz 3</b>	
8	Chemotherapeutics: disinfectants/antiseptics; Antibiotics	2-13,7-2
13	Water-Membrane Filter; Begin Throat/Skin microbe;	7-5, 5-21, 5-23
15	Genetics: Gradient Plate; Viruses: Plaque Assay; Snyder Test	Web Handout; 6-3;7-1
20	Finish water; continue Throat/Skin: coagulase, novobiocin; Parasitic & Live Protozoa	
22	Sequencing-Unknown#3 pt.1 (PCR); Finish Throat, skin microbes; <b>Handout provided</b> <b>Unknown # 2 (Biochemical Unknown) DUE</b>	
27	Sequencing-Unknown #3 pt.2 (Electrophoresis) <b>ELISA</b>	8-6, Web handout
29	Sequencing-Unknown #3 pt.3- (Bioinformatics) <b>Lab Quiz 4</b>	
<b>May</b>		
4	CLEAN OUT DRAWERS. Study for practical; Activity	
6	<b>PRACTICAL #2 (Not comprehensive)</b>	

- Lab Requirements:** You must learn and follow all lab rules and safety regulations any time you are in the lab. Not following lab rules can result in the following consequences:
- Your instructor can deduct points from your lab session grade or overall lab grade.
  - Your instructor can remove you from the lab and give you a zero for the day.
  - Your instructor can fail you for the course.