

DATES		LABORATORY OR PROCEDURE TITLES / NUMBER(S) <i>Read each of these exercises <b>before</b> doing them</i>	RECORD OR DRAW THE RESULTS OF ___ LAB	LAB REPORTS TO TURN IN THIS DAY:
8/24(M) 8/25 (T)	1	1 Lab Overview 2 Lab Safety Rules 5 Basic Techniques: <b>Use of the Microscope</b>	Microscope Use	
8/26 (W) 8/27 (R)	2	8 The Microbial World: <b>Photosynthetic Microbes</b>	Photosynthetic Microbes	Microscope Use
8/31 (M) 9/1 (T)	3	3 Lab Equipment & Media Rules 4 Basic Techniques: Bacteria Used in the Lab 6 Basic Techniques: <b>Aseptic Techniques</b>		Photosynthetic Microbes
9/2 (W) 9/3 (R)	4	9 The Microbial World: <b>Protozoans</b> 10 The Microbial World: <b>Fungi</b>	Aseptic Techniques, Protozoans, Fungi	
9/7 (M) 9/8 (T)		NO LABS – LABOR DAY HOLIDAY		
9/9 (W) 9/10 (R)	5	12 Staining: Introduction & <b>Simple Stain</b> 13 Staining: <b>Negative Stain</b> ☞ Get Slide Boxes (one per team of 2 – keep in drawer)	Simple Stain Negative Stain	
9/14 (M) 9/15(T)	6	<b>WRITTEN EXAM # 1</b> (on lab periods 1 - 5) 14 Staining Techniques: <b>Capsule Stain</b> 18 Media: <b>Blood Agar</b>	Simple Stain Negative Stain Capsule Stain	Aseptic Techniques Protozoans Fungi
9/16 (W) 9/17 (R)	7	15 Staining Techniques: <b>Gram Stain</b> 19 Media: <b>Mannitol Salt Agar</b>	Capsule Stain Blood agar Gram Stain	Simple Stain Negative Stain
9/21 (M) 9/22 (T)	8	16 Staining Techniques: <b>Acid Fast Stain</b> 17 Staining Techniques: <b>Endospore (Spore) Stain</b> 22 Growth: <b>Standard Plate Count</b>	Blood agar, Gram Acid Fast, Spore stains, Mannitol Salt Agar	Capsule Stain
9/23 (W) 9/24 (R)	9	20 Media: <b>Eosin Methylene Blue (EMB) Agar</b> 21 Growth: <b>Evaluation of Media</b> 23 Growth: <b>Osmotic Growth</b>	Gram, Acid Fast, Spore Stains, Plate Count	Blood agar, Mannitol Salt Agar
9/28 (M) 9/29 (T)		NO LABS – FALL HOLIDAY		
9/30 (W) 10/1 (R)	10	24 Growth: <b>Aerotolerance</b> 28 Control: <b>Antimicrobial Susceptibility Test</b> 29 Diagnostic Genetics: <b>DNA Fingerprinting</b> (run gel)	EMB Agar, Osmotic Growth, Evaluation of Media	Acid Fast, Spore Stains, Plate Count
10/5 (M) 10/6 (T)	11	29 Diagnostic Genetics: <b>DNA Fingerprinting</b> (observe gel) 11 Characteristics: <b>Motility</b> – Hanging Drop	EMB, DNA, Motility, Antimicrobial, Aerotolerance	Osmotic Growth, Evaluation of Media
10/7 (W) 10/8 (R)	12	☞ <b>Review</b> for Midterm Practical Exam (students from all days & times may attend review sessions in other / additional lab times as guests)		
10/12 (M) 10/13 (T)	13	<b>MIDTERM PRACTICAL EXAM</b> (on periods 2 -12) & <b>MIDTERM WRITTEN EXAM</b> (on periods 6 – 12)		

DATE	PD	LABORATORY # AND PROCEDURE(S)	RECORD RESULTS	REPORT(S) DUE
10/14 (W) 10/15 (R)	14	31 Microbes & Disease: <b>Parasitic Protozoans</b> ☞ Clean out incubators	Parasitic Protozoans	EMB Agar, DNA, Motility, Antimicrobial, Aerotolerance
10/19 (M) 10/20 (T)	15	32 Microbes & Disease: <b>Parasitic Worms</b> 33 Microbes & Disease: <b>Vectors</b> 7 Basic Techniques: <b>Isolation Streak Plate</b>	Parasitic Worms, Vectors	Parasitic Protozoans
10/21 (W) 10/22 (R)	16	30 Genetics: <b>Bacterial Transformation</b> 35 Diagnostic Immunology: <b>Passive Agglutination</b> 51 Identification of <b>Unknown Bacteria</b>	Streak Plate, Passive Agglutination	Parasitic Worms, Vectors
10/26 (M) 10/27 (T)	17	27 Control: <b>Killing by Ultraviolet (UV) Light</b> 34 Diagnostic Immunology: <b>Immunoprecipitation</b>	Bacterial Transformation, Unknown ID	Streak Plate, Passive Agglutination
10/28 (W) 10/29 (R)	18	36 Identifying Microbes: <b>Enterotube II</b> 37 Quantitating: <b>Soil Microbiology</b> (You can test your own soil from home!)	UV Killing, Immunoprecipitation, Unknown ID	Bacterial Transformation
11/2(M) 11/3 (T)	19	38 Biochemical / Hydrolytic: <b>DNase Test</b> 50 "Known" bacteria for Biochemical testing	Enterotube Soil Microbes Unknown ID	
11/4 (W) 11/5 (R)	20	<b>WRITTEN EXAM # 3</b> (on periods 15 – 19) 39 Biochemical / Hydrolytic: <b>Gelatinase test</b> 42 Biochemical Testing: <b>Phenol Red (Sugar) Broth</b>	DNase Soil Microbes Unknown ID Known Bacteria	Immunoprecipitation, UV Killing
11/9 (M) 11/10 (T)	21	43 Biochemical Test: <b>Triple Sugar Iron (TSI) Agar</b> 44 Biochemical Testing: <b>Litmus Milk</b>	Gelatinase Sugar Broth Unknown ID	Enterotube DNase
11/11 (W) 11/12 (R)		NO LABS – VETERAN'S DAY HOLIDAY		
11/16 (M) 11/17 (T)	22	45 Biochemical Testing: <b>SIM Medium</b> 46 Biochemical Testing: <b>MR and VP tests</b> 47 Biochemical Testing: <b>Simmon's Citrate Agar</b>	TSI Agar Litmus Milk Unknown ID	Soil Bacteria, Gelatinase, Sugar Broth
11/18 (W) 11/19 (R)	23	40 Biochemical / Hydrolytic: <b>Starch Test</b> 41 Biochemical / Hydrolytic: <b>Casease Test</b>	Litmus Milk SIM, MR & VP Citrate, Unknown ID	TSI Agar
11/23 (M) 11/24 (T)	24	48 Biochemical Testing: <b>Urease Test</b> 49 Biochemical Testing: <b>Nitrate Reduction</b>	Starch, Casease Unknown ID	Litmus Milk SIM, MR & VP Citrate
11/25 (W) 11/26 (R)		NO LABS – THANKSGIVING HOLIDAY		
11/30 (M) 12/1 (T)	25	25 Oxygen Metabolism: <b>Catalase Test</b> 26 Oxygen Metabolism: <b>Oxidase Test</b>	Urease, Nitrate, Catalase, Oxidase, Unknown ID	Starch, Casease
12/2 (W) 12/3 (R)	26	☞ Clean up lab: incubators & fridge ☞ <b>Review</b> for Final Practical Exam		Unknown ID
12/7 (M) 12/8 (T)		NO LABS		
12/9 (W) 12/10 (R)	27	<b>FINAL PRACTICAL EXAM</b> (on periods 15 – 26) & <b>FINAL WRITTEN EXAM</b> (on periods 20 – 26)		Urease, Nitrate, Catalase, Oxidase