

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

DATE	PD	LABORATORY # AND PROCEDURE(S)	RECORD RESULTS	REPORT(S) DUE
3/1 (M) 3/2 (T)		MIDTERM PRACTICAL EXAM (on periods 2 -13) & MIDTERM WRITTEN EXAM (on periods 6 – 13)		
3/3 (W) 3/4 (R)	15	31 Microbes & Disease: Parasitic Protozoans ☞ Clean out incubators	Parasitic Protozoans	DNA, Motility
3/8 (M) 3/9 (T)		NO LABS – ENJOY YOUR SPRING BREAK		
3/10 (W) 3/11 (R)				
3/15 (M) 3/16 (T)	16	32 Microbes & Disease: Parasitic Worms 33 Microbes & Disease: Vectors 7 Basic Techniques: Isolation Streak Plate	Parasitic Worms, Vectors	Parasitic Protozoans
3/17 (W) 3/18 (R)	17	30 Genetics: Bacterial Transformation 35 Diagnostic Immunology: Passive Agglutination 51 Identification of Unknown Bacteria	Streak Plate, Passive Agglutination	Parasitic Worms, Vectors
3/22 (M) 3/23 (T)	18	27 Control: Killing by Ultraviolet (UV) Light 34 Diagnostic Immunology: Immunoprecipitation	Bacterial Transformation, Unknown ID	Streak Plate, Passive Agglutination
3/24 (W) 3/25 (R)	19	36 Identifying Microbes: Enterotube II 37 Quantitating: Soil Microbiology (You can test your own soil from home!)	UV Killing, Immunoprecipitation, Unknown ID	Bacterial Transformation
3/29 (M) 3/30 (T)	20	38 Biochemical / Hydrolytic: DNase Test 50 “Known” bacteria for Biochemical testing	Enterotube Soil Microbes Unknown ID	
3/31 (W) 4/1 (R)	21	WRITTEN EXAM # 3 (on periods 15 – 20) 39 Biochemical / Hydrolytic: Gelatinase test 42 Biochemical Testing: Phenol Red (Sugar) Broth	DNase Soil Microbes Unknown ID Known Bacteria	Immunoprecipitation, UV Killing, Enterotube
4/5 (M) 4/6 (T)	22	43 Biochemical Test: Triple Sugar Iron (TSI) Agar 44 Biochemical Testing: Litmus Milk	Gelatinase Sugar Broth Unknown ID	DNase
4/7 (W) 4/8 (R)	23	45 Biochemical Testing: SIM Medium 46 Biochemical Testing: MR and VP tests 47 Biochemical Testing: Simmon’s Citrate Agar	TSI Agar Litmus Milk Unknown ID	Soil Bacteria, Gelatinase, Sugar Broth
4/12 (M) 4/13 (T)	24	40 Biochemical / Hydrolytic: Starch Test 41 Biochemical / Hydrolytic: Casease Test	Litmus Milk SIM, MR & VP Citrate, Unknown ID	TSI Agar
4/14 (W) 4/15 (R)	25	48 Biochemical Testing: Urease Test 49 Biochemical Testing: Nitrate Reduction	Starch, Casease Unknown ID	Litmus Milk SIM, MR & VP Citrate
4/19 (M) 4/20 (T)	26	25 Oxygen Metabolism: Catalase Test 26 Oxygen Metabolism: Oxidase Test	Urease, Nitrate, Catalase, Oxidase, Unknown ID	Starch, Casease
4/21 (W) 4/22 (R)	27	☞ Clean up lab: incubators & fridge ☞ Review for Final Practical Exam		Unknown ID
4/26 (M) 4/27 (T)		FINAL PRACTICAL EXAM (on periods 15 – 26) & FINAL WRITTEN EXAM (on periods 21 – 26)		Urease, Nitrate, Catalase, Oxidase