

MCB 2010L MICROBIOLOGY LABORATORY SCHEDULE Fall 2017 (2016/17 Term III Session III)

TEXT: **MICROBIOLOGY LABORATORY MANUAL 3<sup>rd</sup> Edition; Obenauf & Finazzo**

DATE	Lab Period	LABORATORY PROCEDURES (exercises)	DRAW OR RECORD RESULTS OF	LAB REPORTS DUE
6/28 W	1	Lab Overview & Lab Safety Rules 1* Basic Techniques <b>Use of the Microscope</b> 5 The Microbial World: <b>Protozoans</b> 7 The Microbial World: <b>Motility: Hanging Drop</b>	Microscope Protozoans Hanging Drop	
6/29 R	2	4 The Microbial World: <b>Microbial Phototrophs</b> 6 The Microbial World: <b>Fungi</b> 2 Basic Techniques: <b>Aseptic Techniques</b>	Phototrophs Fungi	Microscope Protozoans Hanging Drop
7/3 M	3	☞ Get Slide Boxes (one per team of 2 – keep in drawer) 8 Staining: <b>Simple Staining &amp; Smear Preparation</b> 9 Staining: <b>Negative Stain</b>	Simple Stain Negative Stain Aseptic Technique	Phototrophs Fungi
7/4 T		<b>Independence Day Holiday College Closed</b>		
7/5 W	4	10 Staining: <b>Capsule Stain</b> 11 Staining: <b>Gram Stain</b>	Gram Stain Capsule Stain	Aseptic Simple Stain Negative Stain
7/6 R	5	12 Staining: <b>Acid Fast Stain</b> 13 Staining: <b>Endospore Stain</b> 14 Media: <b>Blood Agar</b>	Acid Fast Endospore	Capsule Stain Gram Stain
7/10 M	6	<b>*WRITTEN EXAM 1*</b> <i>(on lab periods 1-5)</i> 15 Media: <b>Mannitol Salt Agar (MSA)</b> 16 Media: <b>Eosin Methylene Blue (EMB)</b> 17 Media: <b>MacConkey Agar</b>	Blood Agar	Acid Fast Endospore
7/11 T	7	18 Media: <b>Evaluation of Media</b> 20 Growth: <b>Osmotic Pressure &amp; Growth</b>	MSA MacConkey EMB	Blood Agar
7/12 W	8	19 Growth: <b>Standard Plate Count</b> 21 Growth: <b>Aerotolerance</b>	Eval Media Osmotic Pressure	MSA EMB MacConkey
7/13 R	9	25 Control of Growth: <b>Antimicrobial Susceptibility</b> 26 Control of Growth: <b>Hand Washing</b> 24 Control of Growth: <b>UV Light</b>	Std Plate Count Aerotolerance	Eval Media Osmotic Pressure
7/17 M	10	27 Diagnostic Genetics: <b>DNA Fingerprinting</b> 28 Applied Genetics: <b>Bacterial Transformation</b>	Hand Washing Susceptibility UV Light	Std Plate Count Aerotolerance
7/18 T	11	<b>\$ Review for Midterm Practical Exam</b> <i>students may attend review sessions in other lab times as guests</i>	DNA Fingerprinting Transformation	Hand Washing Susceptibility UV Light
7/19 W		<b>Lab Closed Exam Setup</b>		

7/20 R	12	<p>⇒ <b>MIDTERM PRACTICAL EXAM</b> (on lab periods 1 – 10)</p> <p>⇒ <b>MIDTERM WRITTEN EXAM</b> (on lab periods 6 – 10)</p>		Transformation DNA Fingerprinting
7/24 M	13	<p>29 Microbes &amp; Disease: <b>Parasitic Protozoans</b></p> <p>30 Microbes &amp; Disease: <b>Parasitic Worms</b></p> <p>31 Microbes &amp; Disease: <b>Vectors</b></p> <p>3 Basic Techniques: <b>Isolation Streak Plate</b></p>	Parasitic Protists Parasitic Worms Vectors	
7/25 T	14	<p>32 Diagnostic Immunology: <b>Immunoprecipitation</b></p> <p>33 Diagnostic Immunology: <b>Passive Agglutination</b></p> <p>47 <b>Bacterial Unknowns</b></p>	Isolation Streak Plate Passive Agglutination	Parasitic Protists Parasitic Worms Vectors
7/26 W	15	<p>34 Multisystems: <b>Enterotube II</b></p> <p>35 Environmental Microbiology: <b>Soil Microbes</b></p> <p>46 <b>“Known” bacteria</b> for Biochemical testing</p>	Immunoprecipitation Isolate Unknown	Isolation Streak Plate Passive Agglutination
7/27 R	16	<p>40 Biochemical Testing: <b>Phenol Red (Sugar) Broth</b></p> <p>41 Biochemical Testing: <b>Triple Sugar Iron Agar (TSI)</b></p>	Enterotube Soil	Immunoprecipitation
7/31 M	17	<p><b>Written Exam 3</b> (on lab periods 13-16)</p> <p>42 Biochemical Testing: <b>Litmus Milk</b></p> <p>44 Biochemical Testing: <b>Urease Test</b></p> <p>45 Biochemical Testing: <b>Nitrate Reduction</b></p>	Soil Phenol Red TSI	Soil
8/1 T	18	<p><b>IMViC Testing</b></p> <p>43 Biochemical Testing: <b>SIM Medium</b></p> <p>43 Biochemical Testing: <b>MR and VP tests</b></p> <p>43 Biochemical Testing: <b>Simmon’s Citrate Agar</b></p>	Litmus (if complete) Nitrate Urease	Soil Phenol Red TSI
8/2 W	19	<p>36 Biochemical / Hydrolytic: <b>DNase Test</b></p> <p>38 Biochemical / Hydrolytic: <b>Starch Test</b></p> <p>39 Biochemical / Hydrolytic: <b>Casease Test</b></p> <p>37 Biochemical / Hydrolytic: <b>Gelatinase</b></p>	IMViC tests	Soil (final due date) Litmus if complete Nitrate Urease
8/3 R	20	<p>22 Oxygen Metabolism: <b>Catalase Test</b></p> <p>23 Oxygen Metabolism: <b>Oxidase Test</b></p> <p><b>* Review for Final Practical Exam and complete unknown identification project</b> <i>students may attend review sessions in other lab times as guests</i></p>	DNase Starch Casease Gelatinase Catalase Oxidase	IMViC Litmus (final due date)
8/7 M	22	<p>⇒ <b>FINAL PRACTICAL EXAM</b> (on lab periods 18 – 21)</p> <p>⇒ <b>FINAL WRITTEN EXAM</b> (on lab periods 13– 21)</p>		DNase Starch Casease Gelatinase Catalase Oxidase

\*if you are using the 2<sup>nd</sup> edition of the lab manual, the exercise numbers will be different – use the exercise titles