

**Microbiology Lab 2010L****Term II Spring (2024) Session 3-South Campus**

**TEXT:** M. Leboffe, B. Pierce. 2015. *Microbiology Laboratory Theory and Application* – 4<sup>th</sup> Ed.

Customized for Broward College South Campus by Morton Publishing; 896 pp.

For course Safety Contract follow the link: <https://sites.broward.edu/science-wellness-south/biological-science/>

**Required Materials**

Lab coats and safety glasses are required for all scheduled labs, including open lab and laboratory practical exams.

Date	No.	Laboratory Experiments	Ex. #	Record Results	Report Due
January 22, 23 (M-T)	1	Introduction; Safety and Laboratory Guidelines (Video: Safety in Micro Lab-VHS2398) Introduction to the Light Microscope	HO, p. 1-7, & 3.1	3.1	
January 24, 25 (W-Th.)	2	Common Aseptic Transfers and Inoculation Methods Spread Plate Method of Isolation Ubiquity of Microorganisms	1.3 1.5 2.1		3.1
January 29, 30 (M-T)	3	Streak Plate Methods of Isolation Colony Morphology Growth Patterns on Slants Growth Patterns in Broth	1.4 2.2 2.3 2.4	1.3, 1.5, 2.1 2.2, 2.3, 2.4	
January 31, February 1 (W-Th.)	4	Simple Staining Negative Stain	3.5 3.6	1.4, 3.5, 3.6	1.3, 1.5, 2.1, 2.2, 2.3, 2.4
February 5, 6 (M-T)	5	Gram Stain Acid-Fast Stain	3.7 3.8	3.7 3.8	1.4, 3.5, 3.6
February 7, 8 (W-Th.)	6	Capsule Stain Endospore Stain Flagella Stain (Demo)	3.9 3.10 Flagella	3.9 3.10 Flagella	3.7 3.8
February 12, 13 (M-T)	7	Evaluation of Media Phenylethyl Alcohol Agar Columbia CNA with 5% Sheep Blood Agar Mannitol Salts Agar MacConkey Agar Eosin Methylene Blue Agar	2.5 4.1, 4.2 4.4, 4.5 4.6		3.9 3.10 Flagella
February 14, 15 (W-Th.)	8	The Fungi – Common Yeasts and Molds Fungal Slide Culture (4-way streak Review and practice)	12.1 12.2	2.5, 4.1, 4.2 4.4, 4.5. 4.6 12.1, 12.2	
February 19, 20 (M-T)	9	Microscopic Examination of Eukaryotic Microbes Microscopic Examination of Pond Water Examination of Common Protozoans of Clinical Importance (Gram Staining Review and practice)	3.3 3.4 12.3	3.3, 3.4 12.3	2.5, 4.1, 4.2, 4.4, 4.5, 4.6 12.1, 12.2
February 21, 22 (W-Th.)	10	Parasitic Helminths	12.4	12.4	3.3, 3.4, 12.3
February 26, 27 (M-T)	11	<b>Review for Midterm</b>			12.4
February 28, 29 (W-Th.)	12	<b>Midterm Exam - Written &amp; Practical</b>			

“System Reviews and Mock Practical Schedules are available in ASC 72/237 and at BCSouthCampus.wordpress.com”

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March 11, 12 (M-T)	13	Phenol Red Broth Triple Sugar Iron Agar/Kligler Iron Agar UN - Unknown Bacterial Cultures	5.3 5.21 UN (Handout)		
March 13, 14 (W-Th.)	14	Methyl Red and Vogues-Proskauer Citrate Test SIM Medium Biofilms	5.4 5.9 5.20 7-4	5.3 5.21	
March 18, 19 (M-T)	15	Catalase Test Oxidase Test	5.6 5.7	5.4 5.6, 5.7 5.9, 5.20	5.3 5.21
March 20, 21 (W-Th.)	16	Nitrate Reduction Test Litmus Milk Medium	5.8 5.23	7-4	5.4 5.6, 5.7 5.9, 5.20
March 25, 26 (M-T)	17	Starch Hydrolysis Casein Hydrolysis Gelatin Hydrolysis (48hrs & 7 days) Urea Hydrolysis	5.13 5.16 5.17 5.18	5.8 5.23	7-4
March 27, 28 (W-Th.)	18	Effect of Temperature on Growth Fluid Thioglycolate Medium	2.9 2.7	5.13, 5.16 5.17, 5.18	5.8 5.23
April 1, 2 (M-T)	19	Standard Plate Count Dilution Technique Snyder Test	6.1  7.1	2.9, 2.7 5.17	5.13 5.16 5.18
April 3, 4 (W-Th.)	20	Antimicrobial Susceptibility Test: Lab 1 (Kirby-Bauer Method) Part 1 Work on Unknowns	7.3(P.1)		5.17 2.9, 2.7
April 8, 9 (M-T)	21	ELISA Antimicrobial Susceptibility Test: Lab 1 (Kirby-Bauer Method) Part 2 Work on Unknowns	11.6 7.3(P.2)	11.6 7.3(P.1) 6.1 7.1	
April 10, 11 (W-Th.)	22	Bacterial Conjugation Latex Agglutination Work on Unknowns	BC (Handout) LA (Handout)	7.3(P.2), LA	11.6 6.1 7.1
April 15, 16 (M-T)	23	Complete Unknown Clean-up <b>REVIEW FOR FINAL</b>		BC	7.3, LA
April 17, 18 (W-Th.)	24	FINAL EXAM - WRITTEN & PRACTICAL			BC, (UN)

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**\*\*Important dates:**

March 4-10 – No Classes- Spring Break

March 19 -- Last Day to Withdraw or change to/from Audit

**STUDENTS ARE REQUIRED TO PURCHASE A LAB MANUAL FOR THE FIRST LAB.**