

BIOL 346**MICROBIOLOGY LAB****Fall 2013**

Instructor: Craig L. Moyer
Grad TA: Drew Monks
Labs: WF Noon - 2:00pm and 2:30 - 4:30pm in BI 454
Website: <http://fire.biol.wvu.edu/cmoyer/cmoyer.courses.html>

Required Manuals:

(1) Moyer, C. L. 2013. *Microbiology Lab Manual*. Western Washington University, Bellingham, WA. Available online at class Website (Free).

Note: *You are required to have your copies of the lab(s) before each lab starts!*

(2) Leboffe, M. J. and B. E. Pierce. 2011. *A Photographic Atlas for the Microbiology Laboratory*, 4th edition. Morton Publishing Co. ISBN: 0895828723. Available at online: <http://www.morton-pub.com/index.cfm> (Click on Life Science, then Microbiology; \$42).

Evaluation of Coursework:

Lab Citizenship	20
Dilution Problems	30
Unknown #1	20
Unknown #2	40
Lab Notebook	90
Two Lab Exams @ 50 pts each	100
<u>Final Lab Exam</u>	<u>100</u>
Total Points:	400

Please note: Attendance is mandatory for all labs and at most only one excused absence will be allowed. In order for any absence to be considered excused, you will have to make prior arrangements with your lab TA **AND** your lab partner to make sure no work is missed. You will also be responsible for several outside of class time trips into the lab to pull culture plates from their respective incubators, to read various microbiological reactions that are time critical. These trips into the lab are especially critical during the latter class exercises.

MICROBIOLOGY “TENTATIVE” LABORATORY SCHEDULE

WEEK	LAB DATE	EXERCISES
Week 1	Sept 25 W Sept 27 F	Introduction; Lab Safety Intro to Microscopy; Simple Stains; Wet Mounts
Week 2	Oct 02 W Oct 04 F	Differential Stains, Part I - Gram Stain Differential Stains, Part II - Spore Stain & Capsule Stain
Week 3	Oct 09 W Oct 11 F	Dilutions; Aseptic Technique; Media Prep Isolation of Pure Cultures; Unknown #1
Week 4	Oct 16 W Oct 18 F	Bacterial Enumeration Due Date: Dilution Problems Bacterial Enumeration, continued Due Date: Unknown #1 Due Date: 1st Notebook P/U
Week 5	Oct 23 W Oct 25 F	Effect of Environmental Factors on Bacterial Growth Isolation of <i>Streptomyces</i> Lab Exam I
Week 6	Oct 30 W Nov 01 F	Selective and Differential Media Biochemical Tools for Identification of Gram+ Bacteria
Week 7	Nov 06 W Nov 08 F	Biochemical Tools for Identification of Gram- Bacteria Rapid ID Test Strips; Unknown #2
Week 8	Nov 13 W Nov 15 F	Bacterial Genetics UV Radiation Lab Exam II
Week 9	Nov 22 W Nov 22 F	Disinfectants & Antiseptics; Kirby-Bauer Test; Snyder Test Water Analysis; Food Microbiology Due Date: Unknown #2
Week 11	Dec 04 W Dec 06 F	Complete Water & Food Analyses; Clean-up & Check-out (Notebooks due today, WED!) Lab Final