

**BIOL 346****MICROBIOLOGY LAB****Fall 2008**

**Instructor:** Craig L. Moyer & Marion Brodhagen  
**Grad TA:** Megan Twomey  
**Labs:** WF Noon-2 and 3-5pm in BI 454  
**Website:** <http://fire.biol.wvu.edu/cmoyer/cmoyer.courses.html>

**Required Manuals:**

(1) Moyer, C. L. 2008. *Microbiology Lab Manual*. Western Washington University, Bellingham, WA. Available online at class Website.

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

(2) Leboffe, M. J. and B. E. Pierce. 2005. *A Photographic Atlas for the Microbiology Laboratory*, 3<sup>rd</sup> edition. Morton Publishing Co. ISBN: 0-89582-656-9. Available at online: <http://www.morton-pub.com/productdetails.cfm?PC=51>

**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>
<b>Total Points:</b>	<b>400</b>

**Please note:** Attendance is mandatory for all labs and at most only 1 excused absence will be allowed. In order for any absence to be considered excused, you will have to make prior arrangements with you 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 24 W Sept 26 F	Introduction; Lab Safety Intro to Microscopy; Simple Stains; Wet Mounts & Hanging Drop Slides
Week 2	Oct 01 W Oct 03 F	Differential Stains, Part I - Gram Stain Differential Stains, Part II - Spore Stain & Capsule Stain
Week 3	Oct 08 W Oct 10 F	Dilutions; Aseptic Technique; Media Prep Isolation of Pure Cultures; Unknown #1 <b>Due Date: Dilution Problems</b>
Week 4	Oct 15 W Oct 17 F	Bacterial Enumeration Bacterial Enumeration, continued <b>Due Date: Unknown #1</b> <b>Due Date: 1<sup>st</sup> Notebook P/U</b>
Week 5	Oct 22 W Oct 24 F	Effect of Environmental Factors on Bacterial Growth Isolation of <i>Streptomyces</i> <b>Lab Exam I</b>
Week 6	Oct 29 W Oct 31 F	Selective and Differential Media Biochemical Tools for Identification of Gram+ Bacteria
Week 7	Nov 05 W Nov 07 F	Biochemical Tools for Identification of Gram– Bacteria Rapid ID Test Strips; Unknown #2
Week 8	Nov 12 W Nov 14 F	Bacterial Genetics UV Radiation <b>Lab Exam II</b>
Week 9	Nov 19 W Nov 21 F	Disinfectants & Antiseptics; Kirby-Bauer Test; Snyder Test Water Analysis; Food Microbiology <b>Due Date: Unknown #2</b>
Week 10	Dec 03 W Dec 05 F	Complete Water & Food Analyses; Clean-up & Check-out <b>Lab Final (Notebooks due)</b>