

Instructor: Craig L. Moyer
Grad TA: Richard Llewellyn
Undergrad TAs: Omid Veiseh
Labs: WF 1-3pm *or* 4-6pm @ BI 454
Website: <http://fire.biol.wvu.edu/cmoyer/cmoyer.courses.html>

Required Manuals:

(1) Peele, E.R., and C.L. Moyer. 2000. *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. 1999. *A Photographic Atlas for the Microbiology Laboratory*, 2nd edition. Morton Publishing Co. (Available at the Western's Bookstore)

Evaluation of Coursework:

Dilution Problems	30
Unknown #1	20
Unknown #2	40
Lab Notebooks	90
Two Lab Exams @ 50 pts each	100
<u>Final Lab Exam</u>	<u>120</u>
Total Points:	400

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, and to use the epifluorescence microscope. These trips into the lab are especially critical during the latter class exercises.

MICROBIOLOGY “TENTATIVE” LABORATORY SCHEDULE

WEEK	LAB DATE	EXERCISES
Week 1	Jan 10 Jan 12	Introduction; Lab Safety; Intro to Microscopy Microscopy; Simple Stains; Wet Mounts & Hanging Drop Slides
Week 2	Jan 17 Jan 19	Differential Stains, Part I - Gram Stain Differential Stains, Part II - Spore Stain & Capsule Stain
Week 3	Jan 24 Jan 26	Dilutions; Aseptic Technique; Media Prep Isolation of Pure Cultures; Unknown #1 Due Date: Dilution Problems
Week 4	Jan 31 Feb 01	Bacterial Enumeration Due Date: Unknown #1 Bacterial Enumeration, continued
Week 5	Feb 07 Feb 09	Effect of Environmental Factors on Bacterial Growth Lab Exam I Isolation of <i>Streptomyces</i>
Week 6	Feb 14 Feb 16	Selective and Differential Media Biochemical Tools for Identification of Gram+ Bacteria
Week 7	Feb 21 Feb 23	Biochemical Tools for Identification of Gram– Bacteria Rapid ID Test Strips; Unknown #2
Week 8	Feb 28 Mar 02	Bacterial Genetics Lab Exam II UV Radiation; Ames Test
Week 9	Mar 07 Mar 09	Disinfectants & Antiseptics; Kirby-Bauer Test Water Analysis; Food Microbiology; Snyder Test Due Date: Unknown #2
Week 10	Mar 14 Mar 16	Complete Water & Food Analyses; Clean-up & Check-out Lab Final