



COURSE OUTLINE

Ω Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for your records.

1. Instructor Information

- (a) Instructor: Jeremy Hackett M.Sc.
- (b) Office hours: Mondays, 11.30 to 12.30
- (c) Location: Paul 322
- (d) Phone:
- (e) E-mail: hackettj@camosun.bc.ca

2. Intended Learning Outcomes

Upon successful completion, the student will be able to:

- use their knowledge of sterile lab technique to work safely with microorganisms in a lab environment.

- apply their understanding of the critical role of microorganisms in maintaining and remediating the environment to assess the consequences of human activities.

3. Required Materials

- (a) ENVR 103 Lab Manual, includes Anthology Text
- (b) Lab Coat (may be supplied by the department)
- (c) Lecture note outlines, print from D2L

4. Course Content and Schedule

Lecture: 1 hour / week
Mondays 9:30-10:20
Fisher 336

Lab: 2 hours / week
Tuesday 9:30 to 11:20
Fisher 222

**ENVR.103 SCHEDULE
WINTER 2013**

Week	LECTURE TOPIC	TEXT REF.	LAB EXERCISE
	Monday		Tuesday
1	Lec. 1: Course Introduction	1-13	Lab Safety LAB 1: Microscopy
2	Lec. 2: Bacterial Cell Structure and Function	14-33	LAB 2: Isolation Techniques
3	Structure and Function (continued)	34-41	LAB 3: Bacterial Stains
4	Lec. 3: Growth and Control	42-58	LAB 4: Chemical Control of Growth LAB 5: Physical Methods of Control
5	Growth and Control (continued)	42-58	LAB 6: Growth Parameters
6	Lec. 4: Bacterial Metabolism	59-70	LAB 7: Culture Media
7	Reading Break		Lab Midterm (Labs 1-5)
8	Lecture Midterm (Lectures 1-4)		LAB 8: Soil Bacteria: Nitrogen and Sulphur Cycles
9	Lec. 5: Microbial Ecology: Population Interactions	79-91	LAB 9: Bioremediation: Isolation of Oil Degrading Bacteria
10	Microbial Ecology Biogeochemical Cycling	71-78 106-110	LAB 10: Enterobacteriaceae
11	Lec. 6: Sanitary Microbiology: Water Testing, BOD	92-106	LAB 11: Detecting Coliform Bacteria in Water
12	Sanitary Microbiology: Wastewater Treatment	92-106	LAB 11 continue EI Identification
13	Sanitary Microbiology: Drinking Water	92-106	LAB 11 continue EI Identification
14	Lec. 7: Microbial Biotechnology	111-117	Lab Final (Labs 7-11)

The course schedule is provided to allow you to prepare for your labs in advance. The schedule and exam dates are subject to change as need arises. Since this is a lab-based course, attendance in the lab is mandatory. Students who miss labs without a valid medical excuse may be required to repeat the course. *Students who miss more than 2 hours of lab without a valid medical excuse will be docked 1% of their course mark per lab hour missed.*

Although labs are performed with a partner, all written material to be handed in for grading is to be presented individually. Plagiarism, including the copying of any part of assignments, laboratory reports, quizzes or exams is a serious offense and is considered to be an academic misconduct.

The final lecture exam will be comprehensive; however emphasis will be placed on previously untested material.

Students are expected to write all tests and exams when scheduled. It is the student's responsibility to notify the instructor *in advance* if an exam must be missed. The student will be required to provide verification of emergency circumstance (i.e. note from Doctor) in order to write a make-up exam. Please do not schedule vacations during final exam period.

5. Basis of Student Assessment (Weighting)

- (a) Assignments: 15% of grade
 - Term Paper 5%
 - Environmental Isolate Project 5%
 - Assignments and Lab Reports 5%
- (b) Quizzes: 5% of grade
 - Weekly prelab quizzes
- (c) Exams:
 - Lecture exams: Midterm 20%, Final 25%
 - Lab exams: Midterm 15%, Final 20%

6. Grading System

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D	Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite.	1
0-49	F	Minimum level has not been achieved.	0

7. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College Calendar, Registrar's Office or the College web site at <http://www.camosun.bc.ca>

ACADEMIC CONDUCT POLICY

There is an Academic Conduct Policy. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, Registration, and on the College web site in the Policy Section.

www.camosun.bc.ca/divisions/pres/policy/2-education/2-5.html