

**School of Arts & Science
Environmental Technology**

**ENVR 103 Environmental Microbiology
Winter 2005**

COURSE OUTLINE

The Approved Course Description is available on the web @_____

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: Linda Scotten
- (b) Office hours: Monday 10:30-12:20, Tuesday 2:30-3:20, Wednesday 10:30-11:20
- (c) Location: F342 A
- (d) Phone: 370-3482
- (e) E-mail: lscotten@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 Package

4. Course Content and Schedule

Lecture:	1 hour/week Monday 9:30-10:20	Lab:	2 hours/week Tuesday 9:30-11:20 or 11:30-13:20
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ENVR.103
ENVIRONMENTAL MICROBIOLOGY
SCHEDULE--WINTER 2005

Week	LECTURE TOPIC	LAB EXERCISE
1	Relevance and History of Microbiology	Lab Safety LAB 1 Microscopy
2	Bacterial cell structure and function	LAB 2 Isolation Techniques
3	Growth and Control	LAB 3 Bacterial Stains
4	Growth and Control	LAB 4 Chemical Control of Growth
5	Metabolism	LAB 5 Physical Methods of Control
6	Metabolism	LAB 6 Growth Parameters Lab Midterm (Labs 1-5)
7	Midterm Exam	LAB 7 Culture Media
8	Sanitary Microbiology Water Testing	LAB 8 Enterobacteriaceae
9	Sanitary Microbiology: BOD, Sewage Treatment	LAB 9 Detecting Coliform Bacteria in Water, LAB 10 BOD (Sec1)
10	Sanitary Microbiology: Drinking Water	LAB 10 BOD (Sec 2), Continue Lab 9
11	Microbial Ecology	LAB 11 Soil Bacteria, Continue Lab 9
12	Easter Monday	LAB 12 Bioremediation Complete Labs 9,11
13	Microbial Ecology	Complete Lab 12 and E.I.
14	Biotechnology	Lab Final (Labs 6-12)

The schedule above 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 laboratory based course attendance in the lab is mandatory. *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.*

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.

5. Basis of Student Assessment (Weighting)

(a) Assignments: 5% of grade
 Lab Reports 2%
 Environmental Isolate Project 3%

(b) Quizzes: 5% of grade
 Weekly prelab quizzes

(c) Exams: Lecture exams: Midterm 20%, Final 30%
 Lab exams: Midterm 15%, Final 25%

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

6. Grading System

The following percentage conversion to letter grade will be used:

A+ = 95 - 100%	B = 75 - 79%	D = 50 - 59%
A = 90 - 94%	B- = 70 - 74%	F = 0.0 - 49%
A- = 85 - 89%	C+ = 65 - 69%	
B+ = 80 - 84%	C = 60 - 64%	

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