



## **COURSE OUTLINE**

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

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### **1. Instructor Information**

- (a) Instructor: Ian Browning
- (b) Office hours: Tue 1.30-3.00, Fri 2.30-3.20
- (c) Location: P326
- (d) Phone: 250-370-3342, (4015 Interurban)
- (e) E-mail: [browning@camosun.ca](mailto:browning@camosun.ca)
- (f) Web site: <https://online.camosun.ca/>

### **2. Intended Learning Outcomes**

Upon successful completion, the student will be able to:

- 1. Use their knowledge of sterile lab technique to work safely with microorganisms in a lab environment.
- 2. 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) Lab Manual: from Course D2L site
- (b) Lab Coat (To be purchased by student before the first lab)
- (c) Lecture note outlines, print from D2L:

### **4. Course Content and Schedule**

Lecture: 1 hour / week WT102  
Tue: 3.00-3.50

Lab: 2 hours / week Fisher 222  
Fri: 9.30 – 11:20 OR  
Fri: 12.30 – 14:30

**ENVR.103 SCHEDULE  
WINTER 2017**

<b>Week</b>	<b>LECTURE TOPIC</b>	<b>LAB EXERCISE</b>
1 Jan 10/13	Lec. 1: Course Introduction	<b>Lab Safety</b> LAB 1: Microscopy
2 Jan 17/20	Lec. 2: Bacterial Cell Structure and Function	LAB 2: Isolation Techniques <b>Environmental Isolate Experiment</b>
3 Jan 24/27	Structure and Function (continued)	LAB 3: Bacterial Stains
4 Jan 31/05	Lec. 3: Growth and Control	(LAB 4: Omit) LAB 5: Growth Parameters
5 Feb 07/10	Growth and Control (continued)	LAB 6: Culture Media
6 Feb 14/17	<b>NO Lecture: Reading week</b>	<b>No Lab: Reading week</b>
7 Feb 21/24	Lec. 4: Bacterial Metabolism	LAB 7: Soil Bacteria: Nitrogen and Sulphur Cycles
8 Feb 28/03	<b>Lecture Exam 1 (Lectures 1-4)</b>	LAB 8: Bioremediation: Isolation of Oil Degrading Bacteria
9 Mar 07/10	Lec. 5: Microbial Ecology: Population Interactions	LAB 9: Enterobacteriaceae
10 Mar 14/17	Lec 6: Microbial Ecology Biogeochemical Cycling	LAB 10: Detecting Coliform Bacteria in Water
11 Mar 21/24	Microbial Ecology (cont.)	<b>Lab Exam</b> (Labs 1-9)
12 Mar 28/31	Lec. 7: Sanitary Microbiology: Water Testing, BOD	LAB 10: continue EI Identification
13 Apr 4/7	Sanitary Microbiology: Wastewater Treatment	LAB 10: continue EI Identification
14 Apr 11/14	Sanitary Microbiology: Drinking Water	<b>Holiday: Good Friday</b>

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 2% 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.

Late penalties for assignments are at the discretion of the instructor (max penalty 10% per day)

## **5. Basis of Student Assessment (Weighting)**

- (a) **Assignments:**
  - Env. Isolate Project: 5%**
  - Assignments: 25%**
  
- (b) **Weekly Prelab Quizzes: 5%**
  
- (c) **Exams:**
  - Midterm Exam: 15%,**
  - Lab Exam: 25%**
  - Final Exam: 25%**

## 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](http://www.camosun.bc.ca/divisions/pres/policy/2-education/2-5.html)