

CAMOSUN COLLEGE School of Arts & Science Environmental Technology

Envr 209 Waste Management Remediation Spring 2011

COURSE OUTLINE

This course covers pollution control, waste management principles and techniques and the concept of industrial ecology. Particular emphasis is given to hazardous secondary materials management, hazardous spill prevention and clean up, contaminated site remediation and associated legislation.

Prerequisites: ENVR 110 and CHEM 121.

For current information on the coverage of topics in this term see the course schedule below.

1. Instructor Information

- (a) Instructors: Anna Colangeli, Steve Gormican, Steve Sakiyama
- (b) Office hours: by appointment
- (c) Location: Fisher 208B
- (d) Phone: 250 370-3423 or -3459
- (e) E-mail: gormicans@camosun.bc.ca
- (f) Website: D2L online

2. Intended Learning Outcomes

At the end of this course, students will be able to:

- 1. Discuss basic waste management technology
- 2. Demonstrate skills in contingency planning, basic training in marine oil spill response, and oil spill management
- 3. Discuss provincial and federal legislation on
 - a. Solid, liquid and gaseous waste management
 - b. Transportation of hazardous wastes
 - c. Environmental Impact Assessment
 - d. Contaminated Site Remediation
 - e. Management of hazardous and toxic wastes
 - f. Marine pollution
- 4. Outline how to conduct a preliminary site investigation and develop a site profile for a potentially contaminated site

- 5. Discuss environmentally sound waste management options such as
 - a. Pollution prevention (PP or P2)
 - b. Environmental management systems (EMS's)
 - c. Waste reduction, recycling and reuse (WR3)
- 6. Discuss the analytical techniques for some of the more common pollutants
- 7. Participate in an oral discussion of environmental pollution and monitoring of the environment
- 8. Discuss the role and response of society to environmental issues.

3. Required Materials

(a) Texts – The Following text is optional: Nathanson, J., "Basic Environmental Technology, 4th Edition." Prentice Hall. Columbus, Ohio.2003. There are two copies on special reserve in the library; students might find purchase of the book worthwhile however, both for this course and a general reference. Available from the Camosun Bookstore.

Other N/A

4. Course Content and Schedule

The attached schedule shows the dates, times, places and topics of the class periods. The course will consist of lectures, field trips and include invited speakers.

For field trips, wear clothing that will keep you warm and dry and which you don't mind getting a bit grubby. Proper shoes with closed toes and heels are particularly important. Proper shoes with closed toes and heels are particularly important. Waterproof boots with good tread are recommended for the visit to the Esquimalt graving dock.

Attendance will not be taken; however, be aware that the final grade will be based in part on field trip reports and that the examinations will be based on all of the lectures, field trips and presentations by guest lecturers. You will obtain maximum benefit from full attendance and class participation. This course covers a lot of material in a wide variety of topics; you will have no opportunity to "catch up" in the next lecture.

5. Basis of Student Assessment (Weighting)

	%
Reports on Guest Speakers	40
Field Trip Reports	40
Student Projects	20
TOTAL	100

6. Grading System

(<u>No</u> changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO for approval.)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	А		8
80-84	A-		7
77-79	B+		6
73-76	В		5
70-72	B-		4
65-69	C+		3
60-64	С		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

Standard Grading System (GPA)

Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy E-1.5 at **camosun.ca** for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete</i> : A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	<i>In progress</i> : A temporary grade assigned for courses that, due to design may require a further enrollment in the same course. No more than two IP grades will be assigned for the same course. (For these courses a final grade will be assigned to either the 3 rd course attempt or at the point of course completion.)
cw	Compulsory Withdrawal: A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.

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

Computer with high-speed internet access, email, MS Office.

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.

http://www.camosun.bc.ca/becoming/policies.html