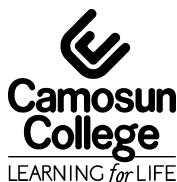


COURSE DESCRIPTION

Grading Systems



CAMOSUN COLLEGE
School of Arts & Science
Environmental Technology

Envr 209 Waste Management Remediation
Spring 2007

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 109,110 and CHEM 121.

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

1. Instructor Information

- (a) Instructor: George Giles, P. Eng
- (b) Office hours: Tuesdays 4:30 to 5:00 pm; by appointment
- (c) Location: Fisher 216
- (d) Phone: TBA
Alternative: 477-2202
- (e) E-mail: gegiles@shaw.ca
- (f) Website: n/a

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

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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)

	%
Quizzes	10
Field Trip Reports	30
Mid-term Exam	25
Final Exam	35
TOTAL	100

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%	I = See Calendar for Details
B+ = 80 - 85%	C = 60 - 64%	AUD = Audit

W = Official withdrawal has taken place.

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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>

Note and Warning: Mr. Giles will enforce the policy on plagiarism rigorously with zero tolerance. Do not copy anything from published sources or another student that violates policy.

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Day	Date	Details
Monday	07 May 2007	intro; environmental chemistry and biology; water flow; sewers
Tuesday	08 May 2007	hydraulics lab (8:30 - 11:30); sewage treatment lecture pm
Monday	14 May 2007	hydraulics lab (8:30 - 11:30); sewage treatment lecture pm
Tuesday	15 May 2007	site visit Peninsula STP 1:00 pm
Monday	21 May 2007	Statutory holiday
Tuesday	22 May 2007	solid waste management, stormwater management lectures
Monday	28 May 2007	Site visit Clover Point ; Site visit Hartland Rd landfill site
Tuesday	29 May 2007	oil spills lectures ; pulp and paper lecture
Monday	04 June 2007	Catalyst pulp mill in Crofton site visit (lv 8:30 am sharp) 24 passenger bus; MID-TERM EXAM
Tuesday	05 June 2007	Graving Dock lecture and tour re ISO 14001 10:15 am (lv at 9:45 am); lectures on hazardous wastes and contaminated sites in pm (12:30 - 5:00 pm)
Monday	11 June 2007	Guest lecture by MWLAP re: air pollution; pm lecture on environmental site assessment, cont'd sites
Tuesday	12 June 2007	Guest lecture by MWLAP re: air pollution; pm continue lecture on environmental site assessment, cont'd sites (possible Coast Guard site visit)
Wednesday	20 June 2007	air pollution monitoring site visit; pm continue lecture on environmental site assessment, cont'd sites
Thursday	21 June 2007	Guest lecture on Rock Bay site remediation; review for exam