

School of Arts & Science ENVIRONMENTAL TECHNOLOGY DEPARTMENT ENVR 209

Waste Management - Remediation

Winter 2015

COURSE OUTLINE

The course description is online @ http://camosun.ca/learn/calendar/current/web/envr.html

1. Instructor Information

Instructor:	Michael Kory		
Office Hours:	Wednesday 2:30 - 4:30 or by appointment		
Location:	F344D		
Phone:	(250) 370-3506	Alternative Phone:	(250) 516-2415
Email:	KoryM@camosun.bc.ca		
Website:	D2L		

2. Intended Learning Outcomes

Upon completion of this course the student will be able to:

- 1. Discuss basic waste management technology.
- Demonstrate skills in contingency planning, basic training in marine oil spill response, and oil spill management.
- 3. Discuss provincial and federal legislation on:
 - Solid, liquid and gaseous waste management.
 - Transportation of hazardous wastes.
 - Environmental impact assessment.
 - Contaminated site remediation.
 - Management of hazardous and toxic wastes.
 - Marine pollution.
- 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:
 - Pollution prevention (PP or P2).
 - Environmental management systems (EMSs).
 - 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 or 5th Edition. Prentice Hall, Columbus, Ohio.2008. There are two copies on special reserve in the library; students might find purchase of the book worthwhile for a general reference. The text can be ordered through the Camosun Bookstore.

Other: Recommended reading links provided in lectures.

4. Course Content and Schedule

The course will consist of lectures, field trips and includes invited speakers. There is no formal laboratory component to ENVR 209. Due to scheduling for multiple sections of this course and professional obligations, dates for field trips and speakers will be announced as visits are formalized. As much notice as possible will be given. Field trips will be scheduled on Tuesdays and Thursdays to accommodate both ENVR 209 sections.

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 practical heels are particularly important. Waterproof boots with good tread are recommended for the visit to the Saanich Wastewater Treatment Plant, Hartland Road Solid Waste Facility, and any other field trip scheduled inadvertently on rainy days. Please be prepared to take notes while on field trips. Please attempt to meet at the bus at or before 1:30 on field trip days to ensure we get as much time as possible at the field site; municipal facilities typically prefer to end tours at 4:00 PM.

Attendance will not be taken; however, be aware that 5% of your final grade will be based in part on field trip/guest speaker feedback forms and class discussions. Keep in mind that the examinations will be based on all of the lectures; with a minor contribution from field trips and presentations by guest lecturers directly related to lecture material. Please be welcoming to guest lecturers who have generously volunteered time from their busy schedules, and since they are experts in their fields, lots of questions are encouraged. This course covers a lot of material in a wide variety of topics. I hope we will all enjoy it.

ENVR 209 - WINTER 2015 SCHEDULE.

Note: Dates for guest speakers and class events are tentative and subject to change.

Week	Date	Monday E201 (8:30-10:20)	Tuesday/Thursday E348 / D014 (1:30-4:20)
1	Jan 5/6/8	Course introduction; outline; grading:	Biology/chemistry review
2	Jan 12/13/15	Introduction to Air Quality	Air Quality Management
3	Jan 19/20/22	Air Quality Emission Controls	Air quality/Liquid Waste
4	Jan 26/27/29	Air Quality quiz/ Liquid Waste	Liquid Waste
5	Feb 2/3/5	Liquid Waste	Field Trip: Saanich Peninsula Sewage Treatment Plant
6	Feb 9/10/12	Family Day-No class	Tuesday Feb 10 th class discussion: Thursday Feb 12 th : Reading Break
7	Feb 16/17/19	Liquid Waste quiz/ Solid Waste Management	Solid Waste Management
8	Feb 23/24/26	Solid Waste Management	Solid Waste Management/Recycling
9	March 2/3/5	Solid Waste/Recycling quiz Contaminated Sites	Contaminated Sites
10	March 9/10/12	Contaminated sites	Contaminated Sites
11	March 16/17/19	Contaminated sites quiz Risk Assessment	Environmental Management Systems
12	March 23/24/26	Environmental Impact Assessment	Petroleum Industry-Marine pollution
13	March 30/31 April 2	Environmental Management Case Study,	Pollution prevention
14	April 7/9	Easter Holiday	Student presentations
15	April 13-17	EXAM period EXAM TBA	EXAM TBA

5. Basis of Student Assessment (Weighting)

Please note that all quizzes, assignments, papers and presentations must be completed to fulfill the requirements of the course.

Component	Grade %
Quizzes (4)	40
Assignments (2)	10
Class Research Paper (15%) and Presentation (5%)	20
Class Participation	5
Final Exam	25
TOTAL	100

6. Grading System

Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	Α		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

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	Incomplete: 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	In progress: 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,	

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, at Student Services, or the College web site at camosun.ca.

STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services, and the College web site in the Policy Section.

Please note that plagiarism will be treated with zero tolerance. Do not copy anything from published sources or another student in any way that violates policy. Student(s) violating policy will be given a zero grade for work(s) submitted.