



**School of Arts & Science**  
**CHEMISTRY AND GEOSCIENCE DEPARTMENT**  
**CHEM 253-001**  
**Environmental Chemistry**  
**Winter 2009**

## COURSE OUTLINE

The Approved Course Description is available on the web @ \_\_\_\_\_

Ω Please note: this outline will be electronically stored for five (5) years only.  
It is strongly recommended students keep this outline for your records.

### 1. Instructor Information

(a)	Instructor:	Neil Meanwell		
(b)	Office Hours:	Mon, 9.30 to 10.30 am and 1.30 to 2.30 pm; Tues, 9.30 to 10.30 am; Wed, 9.30 to 10.30 am and 12.30 to 1.30 pm; Thurs, 3.30 to 4.30 pm		
(c)	Location:	F 348B		
(d)	Phone:	(250) 370-3448	Alternative Phone:	
(e)	Email:	meanwen@camosun.bc.ca		
(f)	Website:	N/A		

### 2. Intended Learning Outcomes

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

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

1. Describe the natural physical and chemical processes that occur in the environment, especially those pertaining to the atmosphere and the hydrosphere.
2. Use the specialized language and terminology of environmental chemistry.
3. Describe the effects of human activity upon the environment and comment on the properties of specific organic and inorganic pollutants.
4. Utilize the knowledge of the chemical and physical properties of substances to determine how various pollutants exert their effects on the environment both qualitatively and quantitatively.
5. Classify hazardous substances according to their properties and describe the approaches to their safe disposal.
6. Classify toxic substances according to type and use the terminology associated with chemical toxicology.
7. Perform numerous laboratory procedures involving the monitoring of various pollutants in the environment.

### 3. Required Materials

- (a) *Texts Environmental Chemistry, 4th Edition, (Freeman), Colin Baird and Michael Cann*

- (b) Other Safety glasses, laboratory coat is recommended.

#### 4. Course Content and Schedule

*(Can include: class hours, lab hours, out of class requirements and/or dates for quizzes, exams, lectures, labs, seminars, practicums, etc.)*

##### The course includes:

- a. Two 80 minute lectures per week.
- b. One three-hour lab per week.

##### c. Assignments

The first assignment will be based on topics learned in Chem 120 and Chem 121 which are most relevant to environmental chemistry. It will be distributed in week #2 and taken in and marked at the beginning of week #5. Further assignment questions will be distributed periodically to keep pace with the course material. The questions will be chosen from the questions given at the end of each chapter of the textbook. Some additional questions will also be given. The assignments will **not** be taken in for marking. Solutions will be posted periodically outside my office.

##### d. Exams

You will be required to take the following exams:

**Midterm Exam #1** Week 7 - 120 minutes duration. Written exam on the lecture material presented from Week 1 to Week 6 of the course. Scheduled for the lab period of Week 7.

**Midterm Exam #2** Week 12 - 120 minutes duration. Written exam on the lecture material presented from Week 7 to Week 11 of the course. Scheduled for the lab period of Week 12.

**Final Exam** 180 minutes duration. Written exam on **all** the lecture material presented in the course. Scheduled for the week immediately following the end of the semester.

##### e. Laboratory Work

You will be required to perform a laboratory experiment each week of the semester except the first and last weeks and the weeks when exams are scheduled.

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

*(Should be linked directly to learning outcomes.)*

Review assignment	5%
Midterm exams (@ 15%)	30%
Final exam	35%
Laboratory work	30%

#### 6. Grading System

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

##### Standard Grading System (GPA)

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

### 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](http://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 <sup>rd</sup> course attempt or at the point of course completion.)
CW	<i>Compulsory Withdrawal:</i> 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

### 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](http://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 on the College web site in the Policy Section.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED