



**School of Arts & Science**  
**CHEMISTRY AND GEOSCIENCE DEPARTMENT**  
**GEOS 110- 001**  
**Earth-Ocean-Atmosphere System**  
**2007 Winter**

## COURSE OUTLINE

The Approved Course Description is available on the College web site

### 1. Instructor Information

(a)	Instructor:	Alan Gell		
(b)	Office Hours:			
(c)	Location:	F 344B		
(d)	Phone:	370-3446	Alternative Phone:	
(e)	Email:	gella@camosun.bc.ca		
(f)	Website:			

### 2. Intended Learning Outcomes

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

1. Describe and interpret short-term and long-term Geologic, Oceanic and Atmospheric processes and their interactions.
2. Make hypothesis-based scientific observations, analyze and interpret quantitative data with reference to Geologic, Oceanic and Atmospheric processes.
3. Discuss the energy budget of the atmosphere, and its short-term and long-term variability.
4. Describe the atmospheric circulation system
5. Comment on the chemical evolution of the atmosphere.
6. Interpret relationships among temperature, salinity and density of seawater, and how these properties vary over time.
7. Describe ocean current transport and be able to assess the role of currents in global heat transfer.
8. Describe relationships among surface ocean currents and atmospheric circulation.
9. Relate ocean-floor topography and ocean depth data to processes of sea-floor spreading and the age of ocean basins.
10. Discuss the circulation of the solid earth.
11. Relate recycling of the elements to circulation of earth, ocean and atmosphere.
12. Discuss evolution of earth's atmosphere, and short- and long-term climate change.
13. Describe processes involved in global warming and ozone depletion.

### 3. Required Materials

(a)	Texts	The Earth System, Kump, Kasting and Crane, Pearson Publ, 2 <sup>nd</sup> ed.
(b)	Other	

### 4. Course Content and Schedule

Lectures: Mon, Tues, Wed 3:30 -4:20; Mon, Wed in E344, Tues in F310

Lab: Thurs 3:30 – 6:20

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

(a)	Assignments	10 labs X 2.5 %
(b)	Quizzes	2 quizzes at 5% each
(c)	Exams	Midterm 1 - 10%, Midterm 2 - 10%, final – 20%
(d)	Other (eg, Attendance, Project, Group Work)	Project 25%

### 6. Grading System

#### Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
95-100	A+		9
90-94	A		8
85-89	A-		7
80-84	B+		6
75-79	B		5
70-74	B-		4
65-69	C+		3
60-64	C		2
50-59	D		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 at [camosun.ca](http://camosun.ca) or 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.

<b>IP</b>	<i>In progress:</i> A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
<b>CW</b>	<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.

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.

## 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.