CAMOSUN COLLEGE	***School of Arts & Science*** ***ENVIRONMENTAL TECHNOLOGY DEPARTMENT*** *ENVR - **ENVR 210: Aquatic Environments*** ***Fall, 2007*** **Sections X01A&B**

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: Steve Gormican
(b) Office hours: Tues 11:30 -12:00 & Thurs 12:30- 13:30
(c) Location: F314A
(d) Phone: 370-3423
(e) E-mail: gormicans@camosun.bc.ca

2. Intended Learning Outcomes

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

1. Utilize the specialized vocabulary of aquatic sciences.
2. Describe and measure lake and ocean morphological features.
3. Compare the physical and chemical properties of fresh and marine waters.
4. Describe lake and ocean layering and vertical mixing processes.
5. Identify the processes for surface circulation patterns in oceans and the linkages with atmospheric processes.
6. Identify the components of waves and tides; utilize standard tide and current tables and software.
7. Compare the chemical components of lakes and oceans.
8. Describe nutrient limitation in lakes & oceans and compare the processes involved.
9. Identify the components of light and its relationship with primary production.
10. Identify processes which affect lake and marine primary production.
11. Compare lake and ocean phytoplankton and zooplankton groups and the factors which affect population abundance.

3. Required Materials

(a) ENVR Lab Manual (S. Gormican Fall, 2007)
ENVR Study Guide (S. Gormican, Fall, 2007)

b) (Optional) Other oceanography and limnology texts are available on Reserve in the library under ENVR 210

4. Course Content and Schedule

WEEK	DATES	COURSE MATERIALS
1	Sept. 04/05	Introduction to Lakes and Oceans (Unit 1) Lake and Ocean Morphology (Unit 2) Lab #1: Bathymetry
2	Sept. 11/12	Properties of Water (Unit 3) Lake Circulation (Unit 3) Lab #2: Lake Morphology
3	Sept. 18/19	Charts, Maps and Navigation (Unit 4) Lab #3: Charts and Navigation (#3A OR #3B)
4	Sept. 25/26	Water Masses Mixing Processes (Unit 5) Lab # 4. Water Masses and T-S Diagrams
5	Oct. 02/03	Atmospheric Circulation and Weather (Unit 6) Surface Circulation (Unit 7) Lab #5. Wind Bands & Surface Currents
6	Oct. 09/10	Waves (Unit 8) Lab #6 Waves
7	Oct. 16/17	Tides (Unit 9) Estuaries and BC Oceanography (Unit 10) Lab #7 Tides
8	Oct. 23/24	Dissolved Ions and Gases (Unit 11 and Unit 12) Lab # 8. Seasonal Changes in Lakes
9	Oct. 30/31	Inorganic Carbon and Carbonates (Unit 13) Lab # 9. Saanich Inlet Profiles
	Nov. 06	**Mid-term exam due.**
10	Nov. 06/07	Nutrients (Unit 14) Lab #10. Nutrient Budget
11	Nov. 13/14	Light (Unit 15) Primary Production (Unit 16)
12	Nov. 20/21	Phytoplankton/Zooplankton (Units 15/16) Lab #11. Submarine Light and Primary Production
	Nov. 23	**Review Paper Due**
13	Nov. 27/28	Zooplankton/Secondary Production (Unit 17)
14	Dec. 04/05	Local Marine Issues and Review
15/16	Dec. 10 – 20	Final exam period. Date to be announced.

5. Basis of Student Assessment (Weighting)

(a) Assignments

Weekly lab exercises (11): 30%

(b) Exams

Mid-term exam: 20%
Final exam: 35%

(c) Other:

Review Paper: 15%

6. Grading System

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** 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 3rd 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

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 on the College web site in the Policy Section.