



School of Arts & Science
ENVIRONMENTAL TECHNOLOGY PROGRAM

ENVR 107
Introductory Physical Geography
Winter, 2009

COURSE OUTLINE

1. Course Description

This course will provide students with a first exposure to physical geography. The material is a mix of the theoretical and practical, and leads into some second-year spring modules and ENVR 207 (Applied Geomorphology), as well as providing useful geographic knowledge that all good environmental technologists should know. Topics will include a fairly detailed introduction to atmospheric processes, weather and climate, and some basics of hydrology and biogeography. Through weekly lab exercises, students will get to try some practical applications of lecture concepts.

My classes tend to be quite informal, and I encourage participation and discussion. My goal is to have you think and understand, so please speak up if you are confused! Group work is encouraged, and you should help each other learn. But this does not mean you can copy! Each student must do their own individual assignment reports, and if I catch people copying, all parties involved will get a mark of zero.

Note: The official Approved Course Description is available on the web at <http://www.camosun.bc.ca/calendar/2007/web/envr.html#ENVR107>

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

2. Instructor Information

Instructor:	Sarah Laxton
Office Hours:	Mon. 11:30-12:30 Wed. 12:30-1:30 Thu. 12:30-1:00 Fri. 12:30-1:30 Other times available by appointment.
Location:	Paul 237
Phone:	370-3352
Email:	laxtons@camosun.bc.ca
Website:	http://camosun.ca/learn/programs/geography/laxton.html
Course D2L	Online.camosun.ca

3. Intended Learning Outcomes

At the end of this course, students will be able to:

1. Describe the properties of Earth's atmosphere.
2. Explain temperature, pressure and wind patterns.
3. Explain atmospheric uplift and precipitation.
4. Explain the occurrence of air masses and weather fronts.
5. Interpret weather maps and predict weather changes.
6. Explain the major causes of weather and climate in British Columbia.
7. Describe the controls on climate and climate change.
8. Describe major processes of the hydrologic cycle.
9. Explain characteristics and environmental causes of different ecosystem types.

4. Course Materials

(a)	Texts	<p><u>Required:</u> Christopherson, R.W. and M. Byrne, 2009. <i>Geosystems:second edition, Canadian Edition</i>. Toronto: Pearson Education Canada, 709 pp. plus appendices.</p> <ul style="list-style-type: none">This book is available in the book store, and there will also be a reserve copy in the library. Older, non-Canadian versions are around, but ultimately you are responsible for the material from the new edition.
(b)	Other	<p><u>Required:</u> D2L online course materials and assignments</p>

5. Course Content and Schedule

- Lectures:** This class has a two-hour lecture Monday, 9:30-11:20. Lectures will generally provide the theory you need to understand the labs and pass the tests, so attendance is essential. I mostly use PowerPoint, and I will post basic lecture outlines on the **course D2L site** <http://online.camosun.ca>. Note, however, that these outlines are no substitute for coming to class!
- Readings** are an essential part of this course – they provide depth and context that are indispensable to your understanding of the course material, and they will be tested. Specific reading assignments are detailed below; these may be modified as the term goes on.
- Labs:** There are eight labs to be done for this class. **You must access lab materials on the D2L website. It is your responsibility to print them off before coming to class.** Labs will take place on Thursdays, 9:30-12:20 or 1:30-4:20. You may work in groups, but each student must write their own individual answers unless instructed otherwise. Attendance of labs is very important, and in some cases mandatory. No credit will be given for wrong answers or missed activities due to unexcused absence from lab. Labs are usually due the following period, and I reserve the right to impose a 10% per day penalty on late assignments. Late assignments will not be accepted after I have returned them marked.

On regular lab days, you should bring pencils, paper, graph paper, calculator and ruler. Lab 7 will take place at Mount Tolmie. For this day, transportation logistics will be arranged ahead of time in class. **Attendance of the field lab is required**, and it is your responsibility to be aware of the plan! Make sure you bring warm clothing and rain gear to appease the weather gods. Snacks, water and sturdy footwear are also advised.

- Exams:** There will be a midterm and a final exam. The format for these will be a combination of multiple choice, short answer and long answer questions. They mainly will emphasize the lecture material, though lab material will also be drawn upon. The midterm will include all material up to and including the lecture on Monday, March 3. The final exam will be cumulative.
- Illness, etc.:** If you miss a lab or exam due to illness or some other serious reason, I must ask you to provide a doctor's note or other documentation to support your story. Otherwise, a mark of zero for the missed assignment will be given. Exams and field trips are hard to reschedule, so try not to miss them unless you are too sick to perform at a normal level.

Students who miss an exam for a valid reason must contact me within 24 hours with an explanation. In such cases, one makeup exam time will be scheduled, and all students needing it will be expected to attend.

• **COURSE SCHEDULE** (Subject to change at instructor's discretion):

<u>Week of</u>	<u>Monday</u>	<u>Thursday</u>	<u>Reading</u>
Jan.5	Intro /	No Class	Ch. 1 (skim), pp. 63-70.
Jan.12	Atmosphere, Radiation, And Temperature	Lab 1: Radiation & Weather Data	Ch. 2, 91-106, 109, 119-127.
Jan.19	Pressure and Wind	Lab 2: Temperature and Wind	pp. 145-169.
Jan.26	Humidity, Clouds and Rain	Lab 3: Humidity and Instability	Ch. 7.
Feb.2	Air Masses and Weather	Midterm Exam	pp. 211-227.
Feb.9	Climate	Lab 4: Weather Maps	pp. 127-133, Ch. 10.
Feb.16	Hydrology I	No Class (Reading Break)	pp. 251-254, 266-273.
Feb.23	Lab 5: Weather Analysis	Lab 6: Groundwater	pp. 254-265.
Mar. 2	Hydrology II	Lab 7: Site Description (at Mt. Tolmie)	Lab handout.
Mar.9	Ecosystem Classification	Lab 8. Ecosystem maps	pp. 636- 644, Ch. 20.
Mar.16	Cryosphere	Lab 9: Glaciers	pp.551-564
Mar.23	Climate Change	Lab 10: Climate Change	pp.315-324
Mar. 30	Dendrochronology	Lab 9: Dendrochronology	
Apr.7	Review	Guest Lecture	
Exam Week	Final Exam		

Note: All page numbers refer to *Geosystems second edition, Canadian ed.*

Also note: Chapter 3 contains some good material on air pollution. This is not required due to time constraints, but suggested reading.

6. Basis of Student Assessment

Evaluation will be based on accuracy, thoroughness, and neatness. As a general rule, always show your work and keep track of units of measure! When I grade your work, I am looking for proof of your understanding, so do everything clearly and carefully – that way you may get partial credit, even for wrong answers. I endeavour to mark things fairly and consistently, but if you have a question about my assessment, feel free to ask about it.

(a)	Labs	42% (5% each, except for Lab 5 (7%))
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(b)	Midterm exam	20%
(c)	Final exam	38%
(d)	Stumper question	Possible 1% bonus .

7. 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		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 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.
IP	<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.
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.

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.

8. 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.