CAMOSUN COLLEGE	***School of Arts & Science*** ***SOCIAL SCIENCES DEPARTMENT*** **GEOG 206** **Lithosphere and Hydrosphere** **Winter, 2010**

COURSE OUTLINE

1. Course Description

This course will provide students with a first exposure to two major fields of physical geography: geomorphology and hydrology. The material is primarily theoretical, but a substantial lab component will introduce some practical skills relevant to these subjects. Topics will include earth structure, plate tectonics and initial landforms, earthquakes, the hydrologic cycle, groundwater, weathering, and processes and landforms associated with the geomorphic agents of gravity, water, ice and wind.

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/geog.html#GEOG206

- *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:	Chris Ayles
Office Hours:	Mon. 11:30-12:20, 2:30-3:30 Wed. 11:30-12:20, 2:30-3:30 Other times available by chance or appointment.
Location:	Fisher 342B
Phone:	370-3393
Email:	cayles@camosun.bc.ca
Website:	cayles.disted.camosun.bc.ca

3. Intended Learning Outcomes

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

1. Identify the structure and composition of Earth's lithosphere and the related processes of deformation, accretion and erosion.

2. Describe the hydrologic cycle, specifically, surface flow patterns, discharge rates and characteristic landforms associated with water transport.

3. Interpret aerial photography and satellite imagery of Earth's landforms; utilize topographic and bathymetric maps for landform assessment; and incorporate field-based observations into geomorphological reports.

4. Course Materials

(a)	Texts	Required: Christopherson, R.W. and M. Byrne, 2009. *Geosystems, 2nd Canadian Edition*. Toronto: Pearson Education Canada, 709 pp. plus appendices. • This book is available in the book store, and there will also be a reserve copy in the library. Older versions are around, but ultimately you are responsible for the material from the new edition. Optional: Trenhaile, A.S., 2007. *Geomorphology: A Canadian Perspective, 3rd Edition*. Don Mills, ON: Oxford University Press Canada, 498 pp. • An excellent, more advanced text. Available in the bookstore, and all three editions of Trenhaile can be found in the library.
(b)	Other	Required: GEOG 206 Lab Manual.

5. Course Content and Schedule

- **Lectures:** This class has two three-hour blocks on Mondays and Wednesdays. Usually, these will be evenly split between lecture and lab time. Attendance is essential. I mostly use PowerPoint for lectures, and I will post basic lecture outlines on my web site: cayles.disted.camosun.bc.ca. 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. Specific reading assignments are detailed below; these may be modified as the term goes on.

- **Labs:** There are ten labs to be done for this class. Each will be given roughly three hours of class time, either as a block or split over two days. **You must buy a lab manual at the bookstore!** 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 late assignments may be penalized 10% per day. 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. Two labs will involve local field trips. For these days, transportation logistics will be arranged ahead of time in class. **Attendance of field labs 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.

- **Field Trip:** A field trip to Goldstream Provincial Park is planned for Wednesday, March 10. A bus will be provided, but we may also need some students to volunteer their cars. **Attendance is required.** Field notes must be handed in at the end of the trip, and are worth 2% of your final mark.

- **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 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)**:**

Week of	Monday	Wednesday
Jan. 4	**No class**	Course Intro *No lab* *Reading: Ch. 1*
Jan. 11	Earth Structure and Plate Tectonics *Lab 1: Topographic Maps* *Reading: pp. 328-339, 349-365*	The Rock Cycle *Lab 1 cont'd* *Reading: pp. 339-349*
Jan. 18	Tectonic Landforms *Lab 2: Maps and Air Photos* *Reading: pp. 369-390*	Earthquakes *Lab 2 cont'd* *Reading: pp. 390-399*
Jan. 25	Volcanic Landforms (lecture and video) *No lab* *Reading: pp. 399-411*	Hydrology I *Lab 3: Groundwater Hydrology* *Reading: Ch. 9*
Feb. 1	Hydrology II *Lab 3 cont'd*	**Guest Lecture** Weathering and Karst *Reading: pp. 415-431*
Feb. 8	Coasts I *Lab 4: Coastal Processes & Landforms* *Reading: Ch. 16*	Coasts II *Lab 4 cont'd*
Feb. 15	Slope Erosion *No lab: review for midterm* *Reading: Trenhaile pp. 108-111*	**Midterm Exam** *No lab*
Feb. 22	Mass Wasting (lecture and video) *No lab* *Reading: pp. 431-442*	***Lab 5: Dallas Road Field Trip***
Mar. 1	Rivers I *Lab 6: Surface Hydrology* *Reading: Ch. 14*	Rivers II *Lab 6 cont'd* *Reading: Trenhaile pp. 256-271*
Mar. 8	Rivers III *Lab 7: Fluvial Landforms*	***Goldstream Field Trip***
Mar. 15	Glaciers I *Lab 7 cont'd* *Reading: pp. 551-570, 576-589*	Glaciers II *Lab 8: Glacial Processes and Landforms*
Mar. 22	Glaciers III *Lab 8 cont'd* *Reading: Halstead article*	***Lab 9: Glacial Landforms Field Trip***
Mar. 29	Periglacial Landscapes *Lab 10: Sedimentology* Reading: pp. 570-576	Arid Landscapes *Lab 10 cont'd.* *Reading: Ch. 15*
Apr. 5	**No class: Easter Monday**	**Guest Lecture** *No lab: review for final exam*
Exam Week	**Final Exam**	

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 come to my office and ask about it.

(a)	Labs	35% (3.5% each)
(b)	Field trip notes	2%
(c)	Midterm exam	23%
(d)	Final exam	40%

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	*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 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	*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.

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.