



COURSE OUTLINE

The course description is online @ <http://camosun.ca/learn/calendar/current/web/envr.html>

- Ω Please note: the College electronically stores this outline for five (5) years only.
It is **strongly recommended** you keep a copy of this outline with your academic records.
You will need this outline for any future application/s for transfer credit/s to other colleges/universities.

1. Instructor Information

(a)	Instructor:	Dr. Vic Levson		
(b)	Office Hours:	Wed 12:30-2:20		
(c)	Location:	Fisher 344D		
(d)	Phone:	370-3506	Alternative Phone:	
(e)	Email:	vlevson@telus.net		
(f)	Website:	D2L		

2. Intended Learning Outcomes

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

1. Describe the major mechanisms of initial land formation.
2. Identify the physical processes and landforms associated with geomorphic agents such as gravity, water and ice.
3. Describe the Quaternary landscape history of southwestern BC.
4. Use a variety of tools and assessment methods common to geomorphological investigations.
5. Carry out a field-based geomorphological project, data collection, analysis and reporting.
6. Interpret sedimentary deposits.

3. Course Materials

- (a) Required: Trenhaile, A.S., 2013. *Geomorphology: A Canadian Perspective, 5th Edition*. Oxford University Press, Canada, 575 pp.
- (b) Optional: Christopherson, R.W., M. Byrne and P. Giles, 2013. *Geosystems: An Introduction to Physical Geography, Third Canadian Edition*. Toronto: Pearson Education Canada, 720 pp. plus appendices.
Optional: Yorath, C.J., 2005. *The Geology of Southern Vancouver Island, Revised Edition*. Madeira Park, BC: Harbour Publishing, 205 pp.

4. Course Content and Schedule

- **Lectures**: Lectures run from 2:30 to 4:20 on Wednesdays; they will provide the theory you need to understand the labs and pass the final exam, so attendance is essential. I use PowerPoint, and I will post basic lecture outlines on D2L. These outlines are pretty sparse, and no substitute for coming to class!
- **Readings** are an essential part of this course – they provide depth and context that are indispensable to a full understanding of the course material. Specific reading assignments are detailed below; these may be modified as the term goes on.
- **Labs**: Labs run from 9:30 to 12:20 on Mondays. **You must come to the lab on time. Some labs are field trips and we will leave promptly at the start time.**

On regular lab days, bring pencils, paper, graph paper, calculator, ruler and protractor. Students will be expected to complete and hand in individual lab reports unless otherwise specified. Cooperation with fellow students is encouraged.

Four of our labs are field-based, and two of these are to be completed in small groups. This means you get each other's help, and you can hand in a single group report. On the downside, you will have to divide the job, arrange meetings, review each other's work, and compromise. This can be fun, or a pain, but either way it is an important skill. If you are having problems with your partners, try to work it out. If you can't, come see me and I will try to help find a solution.

On field days, the bus will leave at 9:30 sharp, so don't be late unless you have made alternate arrangements with me. On field days, students are responsible for bringing: waterproof field notebook, snacks, water, rain and cold gear, camera (ET, AV or own), sturdy footwear, ruler and pencils. Don't break the field gear – it costs a lot!

Lab performance will be evaluated based on thoroughness, neatness, accuracy, participation and, occasionally, writing quality. Attendance during the lab time is mandatory, as these labs are gear-intensive and hard to reschedule. Labs will generally be due the following week, and will not be accepted at all after I have returned them marked. Late reports will be penalized 10% per day.

- **Pet landform presentation:** In trios, students will be expected to research the properties and origin of a local landform of their choosing, and present their findings to the class in one of the final two lab sessions. Details are provided in a separate handout.
- **Exam:** There is no midterm, but there is a cumulative final exam. The format will be a combination of multiple choice, short answer and lab-style questions. They mainly will emphasize the lecture material, though lab material will also be drawn upon.
- **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.

Students who miss a lab or 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.

5. Basis of Student Assessment (Weighting)

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	Lab 1 6% Labs 2, 3, 5, 6, 7, 8, 9 4% <u>Lab 4</u> 12% TOTAL 46%
(b)	Pet Landform Presentation	14%
(c)	Final exam	40%

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	<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. <i>(For these courses a final grade will be assigned to either the 3^d course attempt or at the point of course completion.)</i>
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.

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 the College web site in the Policy Section.

8. TENTATIVE COURSE SCHEDULE (SUBJECT TO CHANGE AT INSTRUCTOR'S DISCRETION AND DEPENDENT ON WEATHER):

NOTE: Field-based lab locations are shown in **bold**; come prepared! Contact me ahead of time if you don't plan to travel with the class.

Week of:	Monday (labs)	Wednesday (lecture)
2-Sep	<i>No lab</i>	Course Intro / Initial Landforms
9-Sep	Lab 1: Surveying (Esquimalt Lagoon)	Slopes 1
16-Sep	Lab 2: Slope stability	Slopes 2
23-Sep	Lab 3: Coastal erosion project (Dallas Road)	Glaciers 1
30-Sep	Lab 4: Glacial processes and landforms	Glaciers 2
7-Oct	Lab 5: Local glacial landforms (Mt. Tolmie, Island View Beach)	Periglacial
14-Oct	<i>No lab</i>	Rivers 1
21-Oct	Lab 6: Surface hydrology	Rivers 2
28-Oct	Lab 7: Fluvial landforms	Aeolian
4-Nov	Lab 8: Terrain classification	Coasts
11-Nov	No lab	No lecture
18-Nov	Lab 9: Terrain map validation (Interurban campus)	Terrain classification
25-Nov	Pet landform presentations	Geological Hazards
2-Dec	Pet landform presentations	Review for final exam

Exam Week: Final Exam.

9. READING LIST

<i>Week:</i>	<i>Required Reading</i>	<i>Comments</i>
1	Trenhaile Chapter 2: The driving and resisting forces	Overview of earth structure and initial land formation processes. For more detail, see Christopherson Ch. 11-12 (<u>optional</u>). <u>Optional</u> but interesting: Trenhaile Ch. 3 (geological formation of Canada).
2	Trenhaile Chapter 4: Weathering and soils	Weathering and slope erosion by runoff. No need to memorize the chemical reactions.
3	Trenhaile Chapter 5: Slope form and processes	Mass wasting – Landslides!
4	Trenhaile Chapter 6: Glaciers and glacial processes Yorath (2005) sections on Mt. Doug and Island View Beach. Read before the glacial driving tour lab	<u>Optional</u> : Christopherson Ch 17;,. <u>Optional</u> : some good glacial history articles by John Clague and Carl Halstead are on reserve
5	Trenhaile Chapter 7: Glacial sediments and landforms	Glacial, glaciofluvial and glaciolacustrine landforms <u>Optional</u> : Trenhaile Ch. 8 is a fascinating but detailed glacial history of Canada.
6	Trenhaile Chapter 9: Periglaciation and permafrost landscapes	Periglacial processes and landforms - could be useful if you ever work up north. <u>Optional</u> : Christopherson pp. 570-576.
7	Trenhaile Chapter 10: Fluvial processes	River processes and sediment transport <u>Optional</u> : Christopherson Ch. 14.
8	Trenhaile Chapter 11: Fluvial landforms	Fluvial landforms, channel patterns, fans and deltas
9	Trenhaile Chapter 12: Aeolian processes and landforms	Sand dunes and loess
10	Trenhaile Chapters 13 and 14: Coastal processes and landforms.	Coastal processes and landforms. <u>Note</u> : You may want to peruse the Thurber Consultants report (on reserve) before lab next week.
11	None.	Focus on your pet landform project.
12	Terrain Classification manual.	Skim before class if possible, certainly before next Tuesday's lab. Copies will be on reserve, or view online at: ilmbwww.gov.bc.ca/risc/pubs/teecolo/terclass/cove1.htm .
13	None.	Focus on your pet landform project.
14	None.	Catch up on readings and start reviewing for final exam.