University of Victoria

Department of Geography

GEOG 276 – INTRODUCTION TO GEOMORPHOLOGY FALL 2018

Instructor: Dan Smith
email: geog276@geog.uvic.ca

Course Lectures: Cornett B108, Tuesday and Wednesday, 1330-1420 hrs

Department of Geography Information

Geography Department website: http://www.uvic.ca/socialsciences/geography
GEOGPLAN degree planning guide: http://www.geog.uvic.ca/moodle [Log in as a guest]
Undergraduate Advisor: Phil Wakefield (philw@geog.uvic.ca)

COURSE DESCRIPTION

Geomorphology is the study of the surface of the Earth. What makes geomorphology different from the other earth science fields is that it is primarily rooted in the explanation of present landforms, though these surfaces may be ancient, and secondarily in active processes, processes that can be, at least theoretically, observed as they occur. From the perspective developed by studying the present, geomorphologists may seek to interpret the importance of past events on present landforms.

This course examines a variety of geomorphological processes and systems. The goal is to provide students with an appreciation of how the landscape around them formed and its continued evolution with particular focus on landscapes of British Columbia, Canada, and western North America.

At the conclusion of the course, you should be able to:

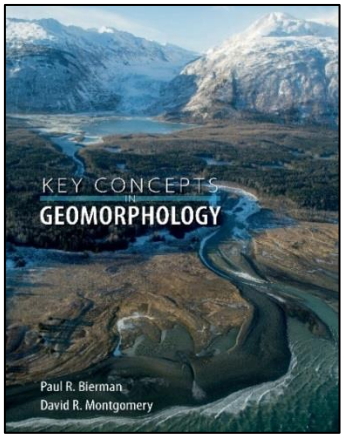
1. Recognise and describe the characteristics of common landforms.

2. Understand and explain the physical principles of common geomorphic and hydrologic processes, and the functioning of the water and sediment cascades.

3. Explain landform development in relation to the relevant geomorphic and hydrologic processes and anticipate the effects of environmental change on both the processes and landforms.

4. Discuss, with the help of case examples, the application of geomorphology and hydrology to environmental management.

RECOMMENDED COURSE TEXTBOOK



Paul R. Bierman and David R. Montgomery. 2013. Key Concepts in Geomorphology. MacMillan Learning

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Chapters

Geomorphology & Its Tools
1 Earth's Dynamic Surface
2 Geomorphologist's Tool Kit

Source to Sink
3 Weathering and Soils
4 Geomorphic Hydrology
5 Hillslopes
6 Channels
7 Drainage Basins
8 Coastal and Submarine Geomorphology

Ice, Wind, and Fire
9 Glacial and Periglacial Geomorphology
10 Wind as a Geomorphic Agent
11 Volcanic Geomorphology

The Bigger Picture
12 Tectonic Geomorphology
13 Geomorphology and Climate
14 Landscape Evolution

Additional Textbook Resources Online

1. Imaging Earth's Surfaces: contains high-resolution images of Earth's surface drawn from public domain sources as well as from members of the Geomorphology community.

2. Web-based Vignettes**:** are stand-alone, illustrated electronic case studies that teach about geomorphology, surface processes, and/or Quaternary history. Go to Vignettes.

COURSE ORGANIZATION

Important Dates:

1. No Class: Wednesday, September 5th.

2. First Class: Tuesday, September 11, 2018.

3. Reading Break: No class on November 12th and 13th.

4. **Mid-term Examination: Wednesday, October 17th, 2018**. Short written answer examination in class period.

5. Last Class: Wednesday, December 5, 2018.

6. **Final Examination**: Two hour final exam with both short answers and essay type questions. The final examination will cover all aspects of the course, including the lab component and readings. Do not make any firm travel plans until you know the date of the final exam.

Lectures:

The lectures build from the relevant readings in the textbook to set out the main ideas, theories and conceptual frameworks for the course. Lectures will synthesize materials from a range of sources, including your own prior knowledge and experiences.

You should come prepared for each lecture. This means you should have read and considered the relevant chapter. From a time management perspective, you should allocate approximately three hours per week for reviewing the textbook.

Dates of Lecture	Lecture Topics	Chapter pages
September 11 &12	Introduction & Concepts in Geomorphology	5-30
September 18 & 19	Weathering and Soil	43-73
September 25 & 26	Hillslope Hydrology & Landforms	111-143
October 2 & 4	Hillslope Geomorphology	146-177
October 9, 10 & 16	Fluvial Geomorphology	179-251
October 17	**Mid-term Examination**	5-215
October 23 & 24	Coastal Geomorphology	253-287
October 30 & 31	Glacial Geomorphology	292-315
November 6 & 7	Glacial Geomorphology	292-315
November 13 & 14	**Reading Break**	NA
November 20 & 21	Periglacial Geomorphology	316-323
November 27 & 28	Aeolian Geomorphology	330-354
December 4 & 5	Geomorphology and Landscape Evolution	425-493
December TBA	**Final Examination**	5-493

Laboratory Exercises:

Labs will be used for completion of a variety of exercises designed to elaborate on the lecture material. The labs are used to teach practical skills in geomorphology and will occasionally involve short field excursions. The laboratory sessions will be supervised by teaching assistants who will also be responsible for assessment of lab work. During the lab sessions, you may be asked to work and report in small groups. Details will be given to you in the lab sessions, including dates for handing in the graded reports. There is no laboratory manual for the course. You must complete and submit all the laboratory exercises to pass the course. Late assignments will be penalized at 25% per day.

Laboratory Schedule

-	**No Lab Meeting**	Week of September 5-7
-	**No Lab Meeting**	Week of September 10–14
-	**No Lab Meeting**	Week of September 17–21
Lab 1	Isostasy (5%)	Week of September 24-26
Lab 2	Hillslope Geomorphology (5%)	Week of October 1-5
Lab 3	Fluvial Geomorphology (5%)	Week of October 8-12
-	**No Lab Meeting – Mid-term week**	Week of October 15–20
	No Lab Meeting	Week of October 22-26
Lab 4	Glacial Geomorphology (10%)	Week of Oct 29 – Nov 2
-	Glacial Geomorphology (continued)	Week of November 5 - 9
	No Lab Meeting – Reading Break	Week of November 12 -16
Lab 5	Applied Geomorphology (10%)	Week of November 19 - 23
-	Applied Geomorphology (continued)	Week of November 26 -30
-	**No Lab Meeting**	Week of December 3 – Term End

COURSE EVALUATION

Laboratory assignments 35%

Mid-term examination 25%

Final examination 40%

A+	A	A-	B+	B	B-	C+	C	D	F
90-100%	85-89%	80-84%	77-79%	73-76%	70-72%	65-69%	60-64%	50-59%	0-49%

UNIVERSITY GRADING AND POLICY INFORMATION

Plagiarism: A student commits plagiarism when he or she: submits the work of another person in whole or in part as original work; gives inadequate attribution to an author or creator whose work is incorporated into the student's work, including failing to indicate clearly the inclusion of another individual's work ; and, paraphrases material from a source without sufficient acknowledgement.

Multiple submission: is the resubmission of work by a student that has been used in identical or similar form to fulfill any academic requirement at UVic or another institution.

Falsifying Materials Subject to Academic Evaluation: includes, fraudulently manipulating laboratory processes, electronic data or research data in order to achieve desired results; using work prepared in whole or in part by someone else (e.g., commercially prepared essays) , and submitting it as one's own; citing a source from which material was not obtained; using a quoted reference from a non-original source while implying reference to the original source; submitting false records, information or data, in writing or orally.

Cheating on Work, Tests and Examinations: Cheating includes, but is not limited to: copying the answers or other work of another person; sharing information or answers when doing take-home assignments, tests or examinations except where the instructor has authorized collaborative work; having in an examination or test any materials or equipment other than those authorized by the examiners ; accessing unauthorized information when doing take-home assignments, tests or examinations; impersonating a student on an examination or test, or being assigned the results of such Impersonation; accessing or attempting to access examinations or tests before it is permitted to do so. It is a violation to help others or attempt to help others to engage in any of the conduct described above.

Aiding Others to Cheat: It is a violation to help others or attempt to help others to engage in any of the conduct described above.

Penalties for First Academic Integrity Violation

In situations where a determination is made that a student has committed a first academic integrity violation, the following penalties will normally be imposed. Single or multiple instances of inadequate attribution of sources should result in a failing grade for the work. A largely or fully plagiarized piece of work should result in a grade of F for the course.

Multiple Submission Without Prior Permission: If a substantial part of a piece of work submitted for one course is essentially the same as part or all of a piece of work submitted for another course, this should result in a failing grade for the assignment in one of the courses. If the same piece of work is submitted for two courses, this should result in a grade of F for one of the courses. The penalty normally will be imposed in the second (i.e., later) course in which the work was submitted.

Falsifying Materials: If a substantial part of a piece of work is based on false materials, this should result in a failing grade for the work. If an entire piece of work is based on false materials (e.g., submitting a commercially prepared essay as one's own work), this should result in a grade of F for the course.

Cheating on Exams: Any instance of impersonation of a student during an exam should result in a grade of F for the course for the student being impersonated, and disciplinary probation for the impersonator (if he or she is a student). Isolated instances of copying the work of another student during an exam should result in a grade of zero for the exam. Systematic copying of the work of another student (or any other person with access to the exam questions) should result in a grade of F for the course. Any instance of bringing unauthorized equipment or material into an exam should result in a grade of zero for the exam. Sharing information or answers for take-home assignments should result in a grade of zero for the assignment when such sharing covers a minor part of the work, and a grade of F for the course when such sharing covers a substantial part of the work.

The University of Victoria is committed to promoting, providing and protecting a positive and safe learning and working environment for all its members.