

KEEP THIS OUTLINE THROUGHOUT THE TERM - IT CONTAINS IMPORTANT INFORMATION

DEPT OF GEOGRAPHY & ENVIRONMENTAL STUDIES

CARLETON UNIVERSITY

Course Outline – Fall 2020

COURSE: The Earth's Surface - GEOG 2014

INSTRUCTOR: Dr. Jennifer Totten
Email: jennifer.totten@carleton.ca
Virtual office hours: Fridays 13:00 – 14:00 hrs; or by appointment

TEACHING ASSISTANTS: T.B.D.

PREREQUISITE: GEOG 1010 or EARTH 1006 or ISCI 1001

LECTURES: Posted online, pre-recorded

LABORATORY:	Lab	Day	Time	Location
	A1	Thursdays	11:35 – 14:25 hrs	Format T.B.D.
	A2	Fridays	11:35 – 14:25 hrs	Format T.B.D.
	A3	Fridays	8:35 – 11:35 hrs	Format T.B.D.

COURSE DESCRIPTION

Introduction to geomorphology. Weathering, slope and fluvial processes within drainage basins, and glacial and periglacial processes (from Carleton University, Undergraduate Calendar).

Geomorphology is the study of landforms and the processes that change them. It is an empirical and field-oriented science, although modelling and laboratory studies are also conducted. Geomorphology has many applications beyond academic study – it provides the technical background to many environmental problems that threaten people (e.g., flooding, landslides, erosion) and also provides insight into the location of economically important resources (e.g., aggregate deposits). Geomorphology is intertwined with a variety of related disciplines such as geology, hydrology, climatology and ecology and, as such, is a key geography/environmental science sub-discipline.

COURSE OBJECTIVES

The primary objective of this course is to develop a sound understanding of earth surface processes, how they form and modify the physical world, starting with fundamental concepts and visiting each of the major geomorphological environments/topics in turn. We will examine how internal earth processes (e.g., volcanism, tectonism) and external agents (e.g., rivers, waves, wind, ice) act together to produce the many landforms and landscapes that we see today. There will be a particular focus on Canadian examples. Students will also learn to identify and interpret landforms and learn geomorphological techniques by completing exercises and lab reports. By the end of the course, students will have be able to identify the dynamic forces responsible for landscape development and comprehend the time it takes for changes to occur.

COMMUNICATION:

This course uses cuLearn, Carleton's learning management system. To access your courses on cuLearn go to <http://carleton.ca/culearn>. For help and support, go to <http://carleton.ca/students>. Any unresolved questions can be

directed to Computing and Communication Services (CCS) by phone at 613-520-3700 or via email at ccs.service.desk@carleton.ca

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TEXTBOOK/READINGS:



Required:

Bierman, P.R. & Montgomery D.R. 2019. *Key Concepts in Geomorphology. Second Edition.* Macmillan Press: 498 pp

It is the responsibility of each student to familiarize themselves with this material. Material contained in the required readings will be included on the final exam. Additional material may be assigned during the term, but will be made available on cuLearn.

Assignments & exams

There will be five lab assignments throughout the semester: four on interpretation of maps/Google Earth imagery, and one on rock sample identification. Labs will typically be due two weeks after they are first assigned, due by 11:55 pm the night before the next week’s lab date. There will be 3 lab sections.

The **midterm exam** is scheduled for **Wednesday, October 21st**. It will be an on-line exam and will likely include multiple choice, fill-in-the-blanks, and short answer-type questions. The test will be based on the lectures and the readings.

The schedule for the final exam has not yet been determined by the University, but it can be anytime between Dec 12 & 23 (including evenings and weekends). It will be 3 hours long, will be an on-line exam and will cover the **entire** course including lectures, readings and assignments. It will be more heavily weighted to the second half of the course.

Course assessment

The assessment for the course will be based on four components:

1. The 5 lab assignments will be worth 8% each (40% total).
2. There will be short quizzes / activities associated with each lesson. Some of these will be on the cuLearn platform, some may involve off-line work that needs to be submitted through cuLearn. These will be worth a total of 10%, equally distributed throughout the term.
3. The midterm examination will be worth 15% of the total marks
4. The final examination will be worth 35% of the total marks - You **MUST** pass the final exam to pass the course, no matter your standing prior to the exam!

All elements of the course will be marked both for content (e.g. ideas, structure of arguments, research, etc.) and presentation (e.g. quality of writing, grammar, spelling, and graphical presentation). Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean.

Submission policy for the course

- Lab assignments are due by 11:55 pm the evening PRIOR TO your next lab session, to be submitted on-line through cuLearn. at the beginning of your lab sessions. Please consult schedule below & cuLearn for due dates.
- Group work is not acceptable. **All submitted work is to be an individual contribution.**

No work will be accepted late except for reasons of illness or equivalent circumstances (e.g. bereavement). These types of reasons must be fully documented in writing (e.g. medical statements, accident reports, etc.) within one week of the date of the mid-term test or assignment due date. Without this documentation, you will be given zero on the assignment or mid-term test. In all cases where work has not been ~~handed in~~submitted, has been ~~handed in~~submitted late without an acceptable reason, or a mid-term test has been missed, zero is recorded in the student's file for the course.

Academic Accommodation

You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:

Pregnancy obligation: write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: equity@carleton.ca

Religious obligation: write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: equity@carleton.ca

Academic Accommodations for Students with Disabilities: The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your **Letter of Accommodation** at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (*if applicable*). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam.

Survivors of Sexual Violence

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and where survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: <https://carleton.ca/equity/sexual-assault-support-services>.

Accommodation for Student Activities

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist.

<https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>

Student Conduct:

The University has adopted a policy to deal with allegations of academic misconduct. This policy is expressed in the document Carleton University Academic Integrity Policy, effective July 1, 2006. The policy describes in detail its scope of application, principles, definitions, rights and responsibilities, academic integrity standards, procedures, sanctions, transcript notations, appeal process, and records implications.

The complete policy is available at: <http://www2.carleton.ca/studentaffairs/student-rights-and-responsibilities/>

Academic Integrity/Plagiarism:

The University Senate defines plagiarism as “presenting, whether intentionally or not, the ideas, expression of ideas or work of others as one’s own.” This can include:

- reproducing or paraphrasing portions of someone else’s published or unpublished material, regardless of the source, and presenting these as one’s own without proper citation or reference to the original source;

- submitting a take-home examination, essay, laboratory report or other assignment written, in whole or in part, by someone else;
- using ideas or direct, verbatim quotations, or paraphrased material, concepts, or ideas without appropriate acknowledgment in any academic assignment;
- using another's data or research findings;
- failing to acknowledge sources through the use of proper citations when using another's works and/or failing to use quotation marks;
- handing in "substantially the same piece of work for academic credit more than once without prior written permission of the course instructor in which the submission occurs."

Plagiarism is a serious offence which cannot be resolved directly with the course's instructor. The Associate Dean of the Faculty conducts a rigorous investigation, including an interview with the student, when an instructor suspects a piece of work has been plagiarized. Penalties are not trivial. They can include a final grade of "F" for the course. (see: <http://www2.carleton.ca/studentaffairs/academic-integrity> and <http://www.library.carleton.ca/howdoi/plagiarism.html>)

Other Important Locations on Campus:

Paul Menton Centre (500 Unicentre) for students needing accommodation
 Academic Writing Centre and Writing Tutorial Service (4th Floor, Library, 613-520-6632)
 Student Academic Success Centre (SASC, 302 Tory, 613-520-7850)
 The Learning Commons (4th Floor, Library, 613-520-2600, ext.1125)

CLASS TOPICS AND READING LIST (Subject to modification)

Lesson 1	General Introduction	
Lesson 2	Key concepts & evolution of geomorphology	
Lesson 3	Rocks and minerals – the framework	Christopherson, Ch 11 (pg. 309 – 343 – cuLearn)
Lesson 4	Plate Tectonics	
Lesson 5	Tectonic landforms	
Lesson 6	Volcanic landforms	
Lesson 7	Weathering & soils	
Lesson 8	Slope processes	
Lesson 9	Fluvial Processes	
Lesson 10	Fluvial landforms	
Lesson 11	Glacial Processes	
Lesson 12	Glacial erosional landforms	
Lesson 13	Glacial depositional landforms	
Lesson 14	Coastal Processes	
Lesson 15	Coastal landforms	
Lesson 16	Aeolian processes & landforms	
Lesson 17	Applied geomorphology	
	Course review	

Lab Assignment Schedule for Fall 2020 Term. <i>Assignment due dates are fixed.</i>
Week of Sept 14 to 18: Assignment 1 given & explained, due Sept 30/Oct 1.
Week of Sep 21 to 25: Lab working periods, T.A. will help during your lab period.
Assignment 1 DUE @ 11:55 pm the night before this week's lab

Week of Sept 28 to Oct 2 lab sessions: Assignment 2 given & explained, due Oct 14/15th.
Week of October 5 to Oct 9: Lab working periods, T.A. will help during your lab period
Monday October 12: Thanksgiving Day – University closed (will be made up on Friday Dec 11th) Assignment 2 DUE @ 11:55 pm the night before this week’s lab
Week of October 12 – 16th lab sessions: Assignment 3 given & explained, due Nov 1/3rd.
Week of October 19 to Oct 23rd: Lab working periods, T.A. will help during your lab period
Oct 26 - 30: Reading Week, no classes or lab sessions
Assignment 3 DUE @ 11:55 pm the night before this week’s lab
Week of November 2 to Nov 6th: Assignment 4 given & explained, due Nov 18/19th.
Week of Nov. 9 to Nov 13th lab sessions: Lab working periods, T.A. will help during your lab period
Assignment 4 DUE @ 11:55 pm the night before this week’s lab
Week of Nov 16 to Nov 20th: Assignment 5 given & explained, due Dec 2/3rd.
Week of Nov 23 to Nov 27 lab sessions: Lab working periods, T.A. will help during your lab period
Assignment 5 DUE @ 11:55 pm the night before this week’s lab
Week of Nov 30th to Dec 4th: no more lab sessions.

Lab	Day	Time	Location
A1	Thursdays	11:35 – 14:25 hrs	Format T.B.D.
A2	Fridays	11:35 – 14:25 hrs	Format T.B.D.
A3	Fridays	8:35 – 11:25 hrs	Format T.B.D.