COURSE: The Earth’s Surface - GEOG 2014

INSTRUCTOR: Dr. Jennifer Totten  
Room B209, Loeb Building  
Email: jennifer.totten@carleton.ca  
Office hours: Mondays & Wednesdays 13:00 – 14:00 hrs; or by appointment

TEACHING ASSISTANTS: TBD

PREREQUISITE: GEOG 1010 or ERTH 1006 or ISCI 1001

LECTURES: Mondays & Wednesdays: 10:05 – 11:25 hrs; Mackenzie Bldg, rm 3235

LABORATORY:  
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<tr>
<th>Lab</th>
<th>Day</th>
<th>Time</th>
<th>Location</th>
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<tbody>
<tr>
<td>A1</td>
<td>Thursdays</td>
<td>8:35 – 11:25 hrs</td>
<td>Loeb A211/A237</td>
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<tr>
<td>A2</td>
<td>Thursdays</td>
<td>14:35 – 17:25 hrs</td>
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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 have an opportunity to interpret landforms and learn geomorphological techniques by completing exercises and lab reports, and by participating in a local field exercise. By the end of the course, students will have gained an appreciation for the dynamic forces responsible for landscape development and 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.

Classroom teaching and learning activities, including outlines, lectures, PowerPoint presentations, posted notes, labs etc., by both instructors and students, are copy protected and remain the intellectual property of their respective author(s). They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author(s). Students registered in the course may take notes and make copies of course materials for their own educational use only. Students are not permitted to reproduce or distribute lecture notes and course materials publicly for commercial or non-commercial purposes without express written consent from the copyright holder(s).”

TEXTBOOK/READINGS:

Required:

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.

Suggested further reading:
If you would like different perspectives, explanations and examples or you are very interested in more geomorphology, then please consult these books (on reserve):


A copy of the course textbook will also be held on four-hour reserve in the library along with the other supplementary textbooks. There are many other worthwhile geomorphology books and journals in the library. Other materials (articles, etc.) that may be highlighted during the lectures will be available on cuLearn.

Assignments & exams
There will be five lab assignments throughout the semester: three on interpretation of maps/Google Earth imagery, one on rock sample identification, and one field trip. Labs will typically be due two weeks after they are first assigned, due at the BEGINNING of the lab. There will be two lab sections.

The midterm exam is scheduled for Wednesday, October 16 at 10:00am. It will take one hour to complete and will 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 9 & 22 (including evenings and weekends). Attendance at the final exam is mandatory, so please do not make any travel plans etc. for this period until you know what the final exam date is. It will be 3 hours long and will cover the entire course including lectures, readings and assignments.
Course assessment
The assessment for the course will be based on three components:
1. The 5 lab assignments will be worth 8% each (40% total).
2. The midterm examination will be worth 20% of the total marks
3. The final examination will be worth 40% 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.

Attendance and submission policy for the course
- Attendance at all lectures, lab and field trips is required.
- Absence from a field excursion will constitute an automatic failure of that assignment, unless proper medical documentation is provided.
- Lab assignments are due at the beginning of your lab sessions. Please consult 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, has been handed in 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](mailto: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](mailto: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](mailto: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](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.


You can visit the Equity Services website to view the policies and to obtain more detailed information on academic accommodations at equity@carleton.ca

**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/](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](http://www2.carleton.ca/studentaffairs/academic-integrity) and [http://www.library.carleton.ca/howdoI/plagiarism.html](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)

**TENTATIVE CLASS SCHEDULE, TOPICS AND READING LIST (Subject to modification)**

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<th>Month</th>
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<th>Topic</th>
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<tr>
<td>September</td>
<td>4</td>
<td>Introduction</td>
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<tr>
<td>9</td>
<td>Key concepts &amp; evolution of geomorphology</td>
<td>Trenhaile Chapter 1 &amp; Chapter 2 (pg 23 to pg 36)</td>
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<td>11</td>
<td>Rocks and minerals – the framework</td>
<td>Trenhaile Chap 2 (pg 37 – 49) Christopherson, Ch 11 (pg. 309 – 343 – cuLearn)</td>
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<tr>
<td>12</td>
<td>Lab 1 – rock identification</td>
<td>Loeb A211</td>
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<tr>
<td>16</td>
<td>Plate tectonics</td>
<td>Trenhaile Chap 2 (pg 49 - 75)</td>
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<td>18</td>
<td>Tectonic landforms</td>
<td>Trenhaile Chap 2 (pg 49 - 75)</td>
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