

Global Environmental Systems, GEOM 1004

Carleton University
Department of Geography & Environmental Studies
Winter 2018

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Office Hours: Monday (11:30am-12:30am) or by appointment

INTRODUCTION

This course introduces you to the study of meteorology, climatology, hydrology, geomorphology, biogeography, and soils. **Meteorology** is study of weather (weather is the state of the atmosphere at a specific time and place). **Climatology** is the study of climate (average weather). **Hydrology** is the study of the movement and distribution of water throughout the Earth, and addresses both the hydrologic cycle and water resources. **Geomorphology** is the study of landforms and the processes that shape them. **Biogeography** is the study of the spatial distribution of plants and animals and the reasons behind the observed distribution. The objectives of the course are to give you an overview of the physical environment surrounding you, and to prepare you for more advanced courses in this subject. The topics in this course are important to students interested in the biophysical sciences and to students who wish to understand the processes underlying many human, social and economic aspects of our environment and natural resources.

COURSE FORMAT

Lectures will follow the attached course outline. The schedule may require minor revisions to accommodate unexpected scheduling issues. The lectures will introduce and illustrate the major concepts in geomatics. Support material will be available on the cuLearn course site.

SCHEDULE

Lectures: Tuesday and Thursday 11:35am- 1:25pm in Mackenzie Building 3275

Lab sessions:

- section B01: Thursday 6:05pm-7:55pm in Loeb Building A120
- section B02: Thursday 8:05pm-9:55pm in Loeb Building A120
- section B03: Thursday 3:35pm-5:25pm in Loeb Building A120
- section B03: Tuesday 2:35pm-4:25pm in Loeb Building A120
- section B03: Friday 8:35am-10:25am in Loeb Building A120

RECOMMENDED TEXTBOOK

Ritter, Michael E. [The Physical Environment: an Introduction to Physical Geography](http://www.earthonlinemedia.com/ebooks/tpe_3e/title_page.html). 2006. Open access textbook available on: http://www.earthonlinemedia.com/ebooks/tpe_3e/title_page.html

LAB MANUAL

Geography 1010 Global Environmental Systems, Lab Manual. Department of Geography and Environmental Studies (The manual is available in the bookstore).

STUDENT RESOURCES AND COMMUNICATION

Office Hours, Email and Appointments

If you have questions pertaining to lecture material I encourage you to come to my office hours or to meet me at the end of class to make an appointment.

All questions about missed assignments, missed exams, and other practical concerns about the course should be directed to me by email. Emails will be responded to during business hours only. Please place the course number GEOG 1010 in the subject line. Private correspondence with the Instructor and Teaching Assistants should be through a Carleton email account (this is accessible in cuLearn).

cuLearn Course Site

The cuLearn course site of GEOG 1010 contains information on all aspects of the course. It includes partial outlines of lectures (not complete notes) and graphs or diagrams presented in class. You need to supplement these notes by attending the class lectures or by referring to the textbook. If you have questions of a general nature, please post it to the “Ask the Instructor” discussion board in cuLearn so that others can benefit from the answers. You will be able to access cuLearn course site and to download files on the first week of classes. If you are not able to login, please contact the course instructor.

EVALUATION

Final marks in the course are based on your performance in five categories as follows:

Participation	10%
Midterm Exam	25%
Lab assignments/Exercises	35%
Final Exam	30%

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.

Participation

Students are expected to attend classes and to discuss the materials for each topic. Your attendance, asking questions, participation in class discussions, and timely submission of assignments will count towards your participation mark.

Lab exercises

There will be eight assignments in total. The lab exercises are meant to complement the course material and to facilitate application and integration of knowledge gained from lectures and readings. Please feel free to collaborate with others during the lab sessions to obtain common data, but please submit your own individually-written lab reports that contain your own analyses and answers to questions. The assignment reports must be received by the start of the lab period of the day on which they are due. If you arrive late to a laboratory period on an assignment due date, it will be considered late and will be penalized by -10% of the maximum assignment grade. Weekends count as 2 days.

Exams

Exams will cover lecture materials. Only students who have made prior arrangements with the instructor, or students who have contacted the instructor within 5 days of the missed midterm exam with a valid doctor’s note explaining why they missed the exam will be permitted to write the make-up exam. ‘

COURSE POLICIES

Late Assignments

Late assignments will be penalized by subtracting 10% per day (including Saturday and Sunday) of the total value of the assignment. Students whose assignments are late because of a valid medical reason or family emergency will not be penalized, however, documentation from a family physician or counseling services will be required. If you are not able to hand your assignment directly to the Instructor or TA, you may email a copy of your work to demonstrate you have completed it on time (before the due date) and provide a hard copy (for marking) as soon as possible after that. Every student will be able to hand in any one assignment up to 12 hours late without penalty. Note that material handed-in via the departmental drop box will not be accepted, unless you make prior arrangements with the instructor or TA.

Missed Assignments or Exams

Students who fail to submit an assignment or write the midterm exam will receive an automatic grade of zero. The only exceptions will be for instances of significant illness or a family emergency. Students who are not able to write the final exam during the exam period must consult with *Exam Services* as soon as they are aware that they will miss the test.

Standards of Written Work

Any assignment submitted should be printed using *word processing software* and checked for spelling and grammar. The overall presentation quality of the assignments will be reflected in your grade.

ACADEMIC INTEGRITY

Academic integrity is a necessary foundation for all meaningful scholarly activity and verified instances of intellectual dishonesty will be dealt with in full accordance with the procedures laid out in Academic Integrity Policy. Additional information regarding what constitutes plagiarism may be found on Carleton University web site: <https://carleton.ca/secretariat/wp-content/uploads/Academic-Integrity-Policy.pdf>

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.

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: <http://www.carleton.ca/equity/>

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: <http://www.carleton.ca/equity/>

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 (*if applicable*) at <http://www.carleton.ca/pmc/new-and-current-students/dates-and-deadlines/> You can visit the Equity Services website to view the policies and to obtain more detailed information on academic accommodation at <http://www.carleton.ca/equity/>

Students representing Carleton University, Ontario or Canada (at academic or sports events):

I fully support students involved with organizations and teams that travel during the semester; however, with this privilege comes additional responsibility. You are responsible for providing formal documentation identifying the organization you represent and potential schedule conflicts with this course. In the event that you are travelling and unable to attend an exam, you must schedule a secondary exam before you depart. Without proper documentation, a missed exam will earn zero points.

HINTS FOR SUCCESS

It is in your best interest to attend class regularly and to participate in class. Try to keep up with your readings and address questions you have on the subject matter at the appropriate time rather than waiting until just before the midterm and final for clarification. This course moves quickly through a large amount

of material in a short time. Try to keep up with your readings and address questions you have on the subject matter at the appropriate time rather than waiting until just before the midterm and final for clarification.

Maps, Satellites and the Geospatial Revolution (GEOM1004)
Winter term 2018 Course Outline

Week	Lecture Class	Lab	Readings
Jan 9-12	Introduction to Course The Sun, the Seasons & The Atmosphere	<i>NO LAB</i>	Ch. 2 Ch. 3
Jan 16-19	The Global Energy System Global Climate Change	Orientation lab	Ch. 4
Jan 23-26	Atmospheric Circulation	Map Lab	Ch. 6
Jan 30- Feb2	Water Cycle and Precipitation	Radiation lab <i>Map Lab is due</i>	Ch. 7
Feb 6-9	Weather	Climate lab <i>Radiation Lab is due</i>	Ch. 8
Feb 13-16	Feb 13: Introduction, Rocks & Rock-Forming Review and tips for the midterm exam Feb 16: Midterm Exam	<i>NO LAB-Midterm week</i>	Ch. 14
Feb 20-24	<i>NO CLASS – WINTER BREAK</i>	<i>NO LAB – WINTER BREAK</i>	
Feb 27- March 2	Tectonic Plates Mass Movements	Tectonics lab <i>Climate Lab is due</i>	Ch.15 Ch.17
March 6-9	Streams	Angle lab <i>Tectonics lab is due</i>	Ch. 18
March 13- 16	Glaciers	Geomorphology lab <i>Angle lab is due</i>	Ch. 19
March 20- 23	Soils	Soils lab <i>Geomorphology lab is due</i>	Ch. 11
March 27- 30	Biogeography: Introduction, Individuals	<i>Soils lab is due</i>	Ch. 12
April 3-6	Populations and Communities Biodiversity	<i>NO LAB</i>	Ch. 13
April 10-11	<i>NO CLASS</i>	<i>NO LAB</i>	
April	<i>FINAL EXAM</i>		