

## **GEOG 2020A PHYSICAL ENVIRONMENTS OF CANADA**

Department of Geography and Environmental Studies, Carleton University [0.5 credit]

### **Course Outline: Fall 2016**

**IMPORTANT DATE: *Mandatory Field Trip - Sunday 25<sup>th</sup> September (all day trip to Renfrew and Eganville)***

#### **Instructor:**

Dr. Joyce Lundberg, Room A327 LA, 613 520-2600 Ext. 2571, [joyce.lundberg@carleton.ca](mailto:joyce.lundberg@carleton.ca) (\*\*put GEOG 2020 in the subject\*\*).

Office hours: Fridays 9:30 – 11:00 am, or email me to make an appointment.

**Schedule:** Lectures: Mondays and Wednesdays 1:00 pm – 2:30 pm, Location Mackenzie 4494

#### **Calendar entry:**

Canada's physiography, climates, biogeography, soils, and landforms.

Prerequisite(s): GEOG 1010 or EARTH 1006 or EARTH 1010 or ISCI 1001. Precludes additional credit for GEOG 2102.

#### **Course description:**

Canadians have a strong sense of pride in the physical environment; it is a big part of the Canadian psyche, and we would all like to understand it better. The land base is vast, the physical landscapes are wonderfully varied, the processes in action interestingly diverse. This course will apply the principles that you have already learnt in GEOG 1010 to Canada. The aim is (1) to provide a general survey of Canada's physical environments, a broad examination of the different processes that shape Canada as we know it; and (2) to highlight individual features of the Canadian physical environment that are particularly special.

I hope to focus on the positive aspects of Canada's physical heritage. We hear plenty about problems but not enough about wonderful things. By the end of the course you should have a basic understanding of the physical features of Canada and be able to reply when your kid says: "Why can't we go to Florida ... what's so special about Canada?" A very important part of the course is the one-day field trip.

Topics will include:

- Rocks, Surface deposits, Soils
- Climate, Vegetation, Ecological regions
- Water, Weather, Climate
- Glaciers, Landslides, Rivers
- Dunes, Coasts, Permafrost

Class schedule included at end of this document (page 5).

#### **Recommended readings:**

There is no one textbook that covers the breadth of material in this course, so **there is no required text**.

However, there are readings and it is important that you do them (see list on *cuLearn*)

Useful general textbooks:

It will be most helpful if you revise what you learned in GEOG 1010 by reading the relevant parts of a physical geography textbook before you come to class. Any Canadian edition of a Physical Geography textbook will be fine. Examples include:

**Christopherson and Byrne: Canadian Geosystems: An Introduction to Physical Environments, 2<sup>nd</sup>**

edition, Canadian, Pearson, [GB54.5 .C48 2009](#) ). You probably already have this from GEOG 1010. It is very good for revising the basic material.

**Strahler and Strahler: Physical Geography: Science and Systems of the Human Environment., Canadian, 4<sup>th</sup> Edition, Wiley** – the library has only the 2005 edition [GB54.5 .S784 2005](#))

Other useful books:

**Trenhaile, A. Geomorphology: A Canadian Perspective. 4th edition.** [GB428.5.C2 T74 2010](#)

**Bird, B. 1980. The Natural Landscapes of Canada. 2<sup>nd</sup> edition.** [GB428.5.C2 B57 1980](#)

**Eyles and Miall: Canada Rocks: The Geologic Journey, Fitzhenry & Whiteside** [QE185 .E98 2007](#)

**Bailey, Oke, and Rouse 1998. The Surface Climates of Canada. McGill-Queen's University Press.** [GB447.S87](#) or B447.S87 1997eb (electronic resource)

**Scott, G. A. J. 1995. Canada's vegetation : a world perspective. McGill-Queen's University Press.** [QK201.S37](#) or QK201 .S33 1995eb (electronic resource)

\*These seven books are available on reserve at the MacOdrum Library

### **cuLearn:**

I use “**cuLearn**” to communicate information about the course.

### **Format:**

Most of the topics will have two parts: a general lecture to provide an overview of how that topic relates to Canada; and a couple of focus topics that highlight particular features or places. I plan to have a number of guest speakers outlining key issues in Canadian physical geography. One week will be a mini-conference where you present your posters. There is an in-class mid-term test and a final scheduled exam.

**Mid-term test (in-class): Monday 31<sup>st</sup> October**

### **Evaluation:**

Attendance: 5%

In class activities: 5%

Assignments: 42%

Mid-term: 20%

Final: 28%

Criteria for grading include spelling, grammar, format as well as academic content.

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.

### **Field trip:**

We will have a one-day field trip on **Sunday 25<sup>th</sup> September**. This will include a visit to Bonnechere caves, for which there is a \$10 charge. Your first assignment is a report on this trip. There is no alternative to this field trip, so please make sure that you arrange your schedule accordingly.

**Assignments:** There will be three assignments throughout the term; 1. Field trip report (12%); 2. Google Earth exploration (10%); 3. Poster (20%).

For all the exercises you may collaborate with others in working through the assignments, but you must prepare and submit your own separate poster/report, written in your own words. All illustrative material must be carefully acknowledged (including material produced by fellow students). Assignments should be submitted electronically, and are due at 5 pm on Friday 7<sup>th</sup> October, and 5 pm Friday 11<sup>th</sup> November. The poster

assignment is due on Monday 5<sup>th</sup> December at noon (we need time to set them up for the class at 1 pm). Late assignments (unless accompanied by relevant documentation such as a doctor's note) will be deducted marks at 5% a day.

### **Examinations:**

There will be one in-class term test (given in the normal lecture period) and a final exam (held during the scheduled exam period at the end of term). These will be in the form of short answers, diagrams, etc. The content of the tests will be discussed in class prior to their respective dates. All test papers may be viewed by the student but are retained by the instructor.

### **Notes:**

Make sure you are properly registered. You should ensure that you have the skills required to take the course. **It is important that you have done a first year prerequisite.**

### **Academic conduct:**

### **Instructional & Conduct Offences:**

Instructional offences include among other activities cheating, contravening examination regulations, plagiarism, submitting similar work in 2 or more courses without prior permission, and disrupting classes. Conduct offences apply in areas of discrimination and sexual harassment. Further information about University regulations which define and regulate these offences is presented in the 2010-11 UG Calendar:

<http://www.carleton.ca/calendars/ugrad/current/regulations/acadregsuniv14.html>

Some of the section on plagiarism is reproduced below, because it is the most common academic offence, and one that can sometimes be committed inadvertently. (Please note that plagiarism also applies to images that you present without acknowledgement).

### **Plagiarism:**

Plagiarism will not be tolerated. Students should consult the Academic Integrity Policy at <http://www2.carleton.ca/studentaffairs/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 Deans of the Faculty conduct 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.

### **Requests for Academic Accommodations**

You may need special arrangements to meet your academic obligations during the term because of disability, pregnancy, or religious obligations. Please review the course outline and 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://www2.carleton.ca/equity/>

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). Requests made within two weeks will be reviewed on a case-by-case basis. After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website ([www.carleton.ca/pmc](http://www.carleton.ca/pmc)) for the deadline to request accommodations for the formally-scheduled exam (if applicable).

## GEOG 2020A PHYSICAL ENVIRONMENTS OF CANADA

### Class Schedule: Fall 2016

Lectures Mondays and Wednesdays 1:00-2:30 pm, Location: TBA  
 My office hours Fridays 9:30-11:00 am LA A327, ext. 2571

The eight topics that I plan to cover include: Geology, Climate, Fluvial, Glacial, Periglacial, Quaternary history, Soil, Biomes. The schedule below is what I hope to follow, but I may have to shift dates around depending on availability of guest speakers (they give their time voluntarily, so we need to be flexible). I have invited three guest speakers to give talks of about 40 minutes each.

Lecture	Date	Lecture	Special topics, deadlines, etc
1	7 Sep	Introduction	
2	12 Sep	Canada's Geology, processes	
3	14 Sep	Canada's Geology, regions	
4	19 Sep	Guest lecture : Tom Zagon (Topic on Sea ice) CONFIRMED	
5	21 Sep	Local environments of Ottawa region	
<b>FIELD TRIP</b>	<b>SUNDAY 25th September</b>	<b>Leaving Loeb 9 am; returning ~ 6 pm</b>	Note: you are required to write a field trip report
	26 Sep	<i>No class- time to write field report</i>	
6	28 Sep	Canada's Climate, processes	Hand out poster assignment (Assignment 3)
7	3 Oct	Canada's Climate, regions	
8	5 Oct	Canada's rivers	<b>7 Oct, 5 pm: Field trip report due (worth 12%)</b>
	10 Oct	<i>No classes-Thanksgiving HOLIDAY</i>	
9	12 Oct	Rivers/Hydrology	
10	17 Oct	Guest lecture: Greg Brooks (Topic on Flooding) CONFIRMED	
11	19 Oct	Canada's glaciers	
	24-28 Oct	<i>Study break ... no classes</i>	
<b>TEST</b>	<b>31 Oct</b>	<b>MID-TERM TEST In-class (worth 20%)</b>	(covers material up to and including 19 October)
12	2 Nov	Glaciers contd.	
13	7 Nov	Canada's periglacial landforms	
14	9 Nov	Periglacial contd.	<b>Nov 11, 5 pm: Google Earth assignment due (worth 10%)</b>
15	14 Nov	Quaternary Environmental change	Research techniques, + preparing

poster.

16            16 Nov            Guest lecture: Steve Wolfe (Topic on  
Climate change) **Date may have to be  
changed**

17            21 Nov            Canada's soil, processes

18            23 Nov            Canada's soil, regions

19            28 Nov            Canada's biomes

20            30 Nov            Canada's biomes

**POSTER    5 Dec            Poster session**

**Dec 5: Poster due in my office  
Loeb A327 at noon: Worth 20%**

**POSTER    7 Dec            Poster session**

Exam Period (10-22 Dec):  
Scheduled TBA            Final Exam (worth 28%)

(includes everything covered after  
19 October)