

GEOG 1010A: GLOBAL ENVIRONMENTAL SYSTEMS

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

Course Outline and Schedule: Fall 2016

Lectures: Tuesday and Thursday 6:00 pm - 7:30 pm. Location: University Centre 231. (First lecture: Thursday Sept 8)

Labs: All labs are held in A120 Loeb
(you will need to choose one for registration)

Day	Time	Section
Tuesday	8:00-10:00 pm	A1
Wednesday	12:30-2:30 pm	A3
Wednesday	3:30-5:30 pm	A5
Thursday	8:00-10:00 pm	A2
Friday	8:30-10:30 am	A4
Friday	12:30-2:30 pm	A7

Prerequisites: None.

Instructor: Dr. Joyce Lundberg, A327 Loeb Building

Phone: 520-2600 Ext. 2571

Email: joyce.lundberg@carleton.ca (**put GEOG 1010 in the subject**)

Office hours: Fridays 9:30-11:00 am (or email me to make an appointment).

1. Course Calendar Description:

Principles, processes and interactions in the Earth's environment emphasizing the flow of energy and matter within global systems. Atmospheric and oceanic processes, Earth surface processes and biogeochemical cycling.

2. Course Objectives:

This course presents a broad survey of the key components of physical geography and is designed to prepare you for further study in the different areas of physical geography. To this end, the linkages between atmospheric, hydrologic, geologic and biologic systems will be explored. Topics of study will include weather and climate, mapping and geographic information systems, Earth structure and geology, landform processes, soils and ecosystems.

This course is a required prerequisite for continuation in all areas of physical geography, including GEOG 2013 (Weather and Water), GEOG 2014 (The Earth's Surface), GEOG 2020 (Physical Environments of Canada), GEOG 3104 (Principles of Biogeography), and GEOG 3108 (Soil Properties).

3. Required Text Book, lecture notes and laboratory manual:

Christopherson, RW and Byrne, M-L. 2012. **Geosystems: an Introduction to Physical Geography**. 4th Canadian Edition. Pearson Education Canada: Toronto. ISBN: 9780134045726 (Note: 2nd or 3rd editions are okay).

- The textbook is available at Octopus Books, 116 Third Ave., Ottawa, 613-233-2589, www.octopusbooks.ca, (just a few steps west of Bank St. in the Glebe), 20-30 minute walk from Carleton. Students can reserve their copy on-line at no extra charge. It costs \$180.95.
- Used copies may be available at Haven Books, Sunnyside + other places + online (check that it is the 2nd or 3rd Canadian edition – the first edition is too old)
- The second edition is on 4-hour reserve at the MacOdrum Library (shared with GEOG 2020).
- I am informed (but have not tried it myself) that you can also rent an e-book for 180 days for about \$60. For this option, go to CourseSmart (www.coursesmart.com) and follow the directions. The ISBN for the eBook is 9780134045726 . You will need to use a credit card (please note that you will be charged in US dollars).

Lecture notes and laboratory assignments will be posted on “cuLearn”. I also use the Carleton email system to communicate information about the course (such as lab assignments, and basic lecture notes). Be warned: ***I do not post anything for which I do not own the copyright.*** I often draw diagrams on the blackboard. Otherwise, all the published diagrams you will need are in the textbook.

Course Requirements & Evaluation:

- 40% Laboratory Assignments (8 × 5%)
- 15% In-class test #1 (normal class time –**October 6th**)
- 15% In-class test #2 (normal class time –**November 8th**)
- 20% Final Exam (held during scheduled exam period, date TBA)
- 10% Attendance and in-class activities

- Except under special circumstances, you must pass the lab section in order to pass the course.
- You must attend the lab to receive a grade on it (i.e., you cannot submit a lab for grading if you have not attended it).
- I allow 3% flexibility in weighting of the two in-class test grades providing you have done both tests – the test you did best on will be weighted 3% more – but the total of both tests remains 30%)
- Look out for opportunities to get bonus marks (e.g., first lab is 1%, LSS workshops are 3%)

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

Class schedule is included at the end of this document.

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.

Lab Assignments:

The first lab is a bonus lab (worth an additional 1% on your final grade). Eight mandatory laboratory sessions will be held throughout the term. These have two basic purposes: 1. to further develop the concepts introduced during the lectures through hands-on activities; and 2. to introduce you to, and give you practice in, basic scientific methods used in geography (so, the labs are not simply a repetition of the lecture material). Collaborative effort in working out assignments is encouraged, and often required, although **individual reports must be submitted**. This means that you may submit the same group-derived tables or data sheets (these will be identified by your teaching assistants in the labs), but all answers to questions, analyses and discussion points must be your own work (see note about Academic conduct below – you cannot, for example, submit what is

essentially the same file with only the name changed).

Assignments generally are due at the beginning of your lab one week after distribution, unless otherwise indicated. Late assignments will be penalized unless accompanied by appropriate documentation (e.g., medical note – which you deliver to your TA). If handed in any time after the beginning of your lab period, your assignment will be penalized by 5% and then 5% for every additional day (5% per weekend) and will not be accepted after assignments have been returned to the first lab section of the week (Tuesday 8 pm).

All assignments must be submitted directly to your TA at the start of your regular lab period (*if you need to submit by email, you must obtain permission from the TA – not the instructor*). Late assignments can be submitted in the mail slot on the door of Room B342, Loeb Building. If you choose to do this, you do so at your own risk. The instructor will not accept responsibility for any assignment that goes missing if submitted via the drop box or any other method other than directly to your TA. You are advised to keep a backup copy of each of your labs before submitting it.

Please do not miss labs ... at the end, having missed just one (without a doctor's note) may bump you down a whole grade point.

Clearly indicate the course code (GEOG 1010), my name (Joyce Lundberg), your name, your lab section and your TA's name on the cover of every assignment that you submit.

Examinations:

There will be two in-class term tests (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.

Missed labs or tests:

If you miss a lab or a test with adequate reason (e.g., illness), written supporting documentation (usually in the form of a doctor's note) must be submitted to the instructor (i.e., to me) as soon as possible after missing the lab or test. Documentation will not usually be considered if submitted more than 7 days after the missed lab or test. For a lab missed through illness, we will try to accommodate you in another lab session later in the week.

Help with laboratory and lecture materials:

There are a variety of ways to get help if you are having difficulties with any of the course materials, including: PASS (see below), informal study groups with other classmates, keeping up with the assigned readings in your text, reviewing your lab assignments prior to your lab session. The course instructor and your TA are here to facilitate your learning. **Ask us for help when you need it!** For questions regarding lecture materials, you can see the instructor or the TAs. Because of the size of this class, for questions regarding your labs, please see your TA first, rather than the instructor. The instructor and the TAs can be reached by email to arrange a meeting or else just turn up to my office hours on Friday mornings.

Peer Assisted Study Sessions (PASS):

Organized by the Student Academic Success Centre (<http://www2.carleton.ca/sasc>), peer assisted study sessions are weekly study sessions led by trained students who have earned an A grade in this course in past years. PASS facilitators work with small groups of students to review course content and develop course-appropriate learning strategies. Sessions are entirely voluntary and anonymous and are intended to offer a safe, friendly place to help students develop strategies to be successful. Whether your aim is to survive GEOG 1010

or maintain that A average, the PASS facilitator can help you achieve your goal.

Learning Support Services (LSS):

This is a series of workshops designed to develop and refine your academic skill set. Examples of workshops include Time Management, Writing Exams, Research Skills. Attendance at these workshops will be credited at 0.5% per workshop to a maximum of 3% bonus marks. Please login to Carleton Central and click on the “Learning Support Services – Workshops” link under the mySuccess tab to see the full schedule. You can also find the daily workshops schedule written on the two whiteboards in the Learning Support Services Common area on the 4th floor of the Library. Advance registration is not required.

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 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) for the deadline to request accommodations for the formally-scheduled exam (if applicable).

GEOG 1010 GLOBAL ENVIRONMENTAL SYSTEMS Fall Schedule, 2016

This schedule may be subject to change. Updates will be announced on cuLearn. For example, if there is time, I would like to do a lecture on Eolian Landforms.

The class is divided into three main sections, with a test after each section. Readings are given for the recommended, 4th, Canadian edition of the textbook, but also for the 2nd edition and 3rd edition.

Date	Lectures (Tuesdays, Thursdays 6 pm) Uni Centre 231	Topic and Readings	Labs (see above for time of your lab) A120 Loeb
Week 1	Sep 8	Introduction to course	No lab this week
Week 2	Sep 13 Sep 15	Maps, Remote Sensing, GIS <i>Readings: Chapter 1 & Appendix A</i>	Bonus lab – Map library orientation (due same day)
Week 3	Sep 20 Sep 22	The Sun and the Atmosphere <i>Readings: Chapter 2,3</i> Radiation & Energy Budget <i>Readings: Chapter 4</i>	#1 – Topographic maps and navigation (due in one week)
Week 4	Sep 27 Sep 29	Global Temp <i>Readings: Chapter 5</i> Air Circulation <i>Readings: Chapter 6</i>	#2 – Radiation (due in one week)
Week 5	Oct 4 Oct 6 TEST	Atmospheric Moisture & Weather <i>Readings: Chapter 7, 8</i> In-class test # 1 (worth 15%, on lecture material up to and including Sep 29)	No lab this week
Week 6	Oct 11 Oct 13	The Lithosphere, Rocks, Tectonics <i>Readings: Chapter 12, 13</i> <i>(11, 12 for 2nd and 3rd ed)</i>	#3 – Climate (due in one week)
Week 7	Oct 18 Oct 20	The Lithosphere, Earthquakes, Volcanoes Weathering and Mass movements <i>Readings: Chapter 14 (13 for 2nd and 3rd ed)</i>	#4 – Plate tectonics (due in two weeks)
Week 8	Oct 24-Oct 28	NO CLASSES	
Week 9	Nov 1 Nov 3	Soils <i>Readings: Chapter 18</i>	# 5 – Angle of repose and Angle of Sliding Friction (due in two weeks)
Week 10	Nov 8 TEST	In-class test # 2 (worth 15%, on	No lab this week

		lecture material from October 4 up to and including November 1)	
	Nov 10	Fluvial processes and landforms <i>Readings: Chapter 15 (14 for 2nd and 3rd ed)</i>	
Week 11	Nov 15	Fluvial (Contd)	#6 – Soil lab (due in one week)
	Nov 17	Glacial Processes and landforms. <i>Readings: Chapters 17 (2nd ed.: p.551-570; 3rd ed.: p.515-531)</i>	
Week 12	Nov 22		#7 – Geomorphic interpretation of air photographs & satellite imagery (due in one week)
	Nov 24	Permafrost and Periglacial processes and landforms. <i>Readings: Chapters 17 (2nd ed.: p. 570-577; 3rd ed.: p. 530-537; 4th ed: p.550-554)</i>	
Week 13	Nov 29		#8 –Biogeography lab (due in one week)
	Dec 1	Ecosystems & Biomes <i>Readings: 2nd ed: Chapter 10 (p.286-315), 19 (p. 627-643), 20 (all pages) 3rd ed: Chapter 10 (p. 263-294) 19 (p. 587-601), 20 (all pages) 4th ed: Chapter 10 (p. 275-301), 20 (all pages)</i>	
Week 14	Dec 6		No lab this week
	Dec 8 (Last class)	Biomes (contd.)	
Scheduled Exam Period Dec 10-22		Final Exam (worth 20%, on lecture material from November 3 to Dec 8) Scheduled exam – date, time and location TBA)	