

Global Environmental Systems GEOG 1010A

[0.5 credit]

Fall 2023

Lecture: Tues/Thurs 13:05 – 14:25

Labs: Section A01 Thurs 18:05-19:55, A02 Fri 14:35-16:25, A03 Wed 11:35-13:25, A04 Fri 11:35-13:25, A05 Fri 8:35 – 10:25, A06 Thurs 14:35 – 16:25

Instructor: Elyn Humphreys, <elyn.humphreys@carleton.ca>

Office hours: Tuesday 12:00 – 12:50; or whenever my door is open; or please email me to make an appointment for an in-person or zoom meeting.

Teaching Assistants: See Brightspace course page for details.

1. Course Description:

This course introduces the environmental processes and systems that shape the biophysical world around us. Students will explore how Earth’s atmosphere, hydrosphere, lithosphere and biosphere are structured and interact to create the diverse climates, landforms, and ecosystems we find within Canada and around the world. We will discuss the profound impact humans have on local and global environmental systems.

2. Preclusions: none

3. Texts:

Leaver, D. 2018 HOW THE EARTH WORKS: A Simplified View of Our Complex Planet. Open access textbook available Brightspace course page. © Text Copyright Darren Leaver 2018

All lecture and lab course materials will be made available on Brightspace*

*Student or professor materials created for this course (including presentations and posted notes, labs, assignments and exams) remain the intellectual property of the author(s). They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author(s).

4. Course Calendar:

Tentative schedule:

Week	Lecture	Lab
W1. Sept 6-8	L1.Introduction	<i>No labs this week</i>
W2. Sept 11-15	L2. Solar energy L3. Radiation balance	Lab 1. MacOdrum Map Library (<i>Lab 1 completed during lab period</i>)
W3. Sept 18-22	L4. The atmosphere L5. Energy balance	Lab 2. Topographic maps
W4. Sept 25-29	L6. Global circulation L7. Temperature patterns	Help session Lab 2
W5. Oct 2-6	L8. Water cycle and precipitation patterns L9. Climate and weather patterns	Lab 3. Radiation (<i>Lab 2 due</i>)
W6. Oct 9-13	L10. Climate change L11. Midterm review	Lab 4. Climate (<i>Lab 3 due</i>)
W7. Oct 16-20	-- Midterm (Oct 17) -- L12. The lithosphere: endogenic	Help session Lab 4

	processes	
<i>Oct 23-27</i>	<i>Reading Break – no lectures this week</i>	<i>No labs this week</i>
W8. Oct 30-Nov 3	L13. Earthquakes & volcanoes L14. The lithosphere: exogenic processes	Lab 5. Plate tectonics (<i>Lab 4 due</i>)
W9. Nov 6-10	L15. River systems and landforms L16. Eolian processes and landforms	Lab 6. Geomorphology (<i>Lab 5 due</i>)
W10. Nov 13-17	L17. Glaciers L18. Periglacial environments	Help session Lab 6
W11. Nov 20-24	L19. Soils part 1 L20. Soils part 2	Lab 7. Soils (<i>Lab 7 completed during lab period</i>)
W12. Nov 27-Dec 1	L21. Biogeography L22. Canada’s terrestrial biomes	<i>No labs this week</i>
W13. Dec 4-8	L23. Final Review -- No class Dec 7 --	<i>No labs this week</i>

5. Evaluation:

In-class participation activities	10%	
Laboratory assignments (7)	40%	
Mid-term exam	25%	(Oct 17)
Final exam	25%	(held during the exam period)

In-class participation: To receive these marks, you must be present in-class (no make-up activities will be offered). There will be 23 lecture sessions to earn these marks (0.5% per lecture session to a maximum of 10%).

Laboratory assignments: Seven assignments will help you further develop the concepts introduced during the lectures. Five lab assignments (labs 2, 3, 4, 5, and 6) will be written up and submitted for grading (7% each). Labs 1 and 7 will be completed during the lab period where you will check and correct your answers with the TA before leaving to receive full marks (2.5% each).

Policy on collaboration and AI: Collaboration is encouraged while working through the assignments, but each student must hand in their own individually prepared assignment. In addition, any use of generative AI tools (e.g. Chat GPT) to produce assessed content in this course is considered a violation of academic integrity standards. See also statement on plagiarism below for other academic integrity standards.

Policy on lateness: Lab assignments will normally be submitted through Brightspace on the due date/time noted on the assignment. Late assignments will be penalized by 5% of the total value of the assignment for every additional day beginning immediately at the deadline and will not be accepted after assignments have been graded and returned. Extensions may be granted for legitimate reasons including short-term incapacitation. See section 8 below to request informal accommodation due to short-term incapacitation.

Exams: These will be limited time and include multiple choice and short paragraph answers.

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.

6. Statement on Plagiarism:

Plagiarism will not be tolerated. Students should consult the [Academic Integrity Policy](#).

The University Academic Integrity Policy defines plagiarism as “*presenting, whether intentionally or not, the ideas, expression of ideas or work of others as one’s own.*” This includes 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. Examples of sources from which the ideas, expressions of ideas or works of others may be drawn from include but are not limited to: books, articles, papers, literary compositions and phrases, performance compositions, chemical compounds, art works, laboratory reports, research results, calculations and the results of calculations, diagrams, constructions, computer reports, computer code/software, material on the internet and/or conversations.

Examples of plagiarism include, but are not limited to:

- any submission prepared in whole or in part, by someone else, including the unauthorized use of generative AI tools (e.g., ChatGPT);
- using ideas or direct, verbatim quotations, paraphrased material, algorithms, formulae, scientific or mathematical concepts, or ideas without appropriate acknowledgment in any academic assignment;
- using another’s data or research findings without appropriate acknowledgement;
- submitting a computer program developed in whole or in part by someone else, with or without modifications, as one’s own; and
- failing to acknowledge sources through the use of proper citations when using another’s work and/or failing to use quotations marks.

Plagiarism is a serious offence that cannot be resolved directly by 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 or even suspension or expulsion from the University.

7. Statement on Student Mental Health

As a University student you may experience a range of mental health challenges that significantly impact your academic success and overall well-being. If you need help, please speak to someone. There are numerous resources available both on- and off-campus to support you. Here is a list that may be helpful:

Emergency Resources (on and off campus): <https://carleton.ca/health/emergencies-and-crisis/emergency-numbers/>

Carleton Resources:

- Mental Health and Wellbeing: <https://carleton.ca/wellness/>
- Health & Counselling Services: <https://carleton.ca/health/>
- Paul Menton Centre: <https://carleton.ca/pmc/>
- Academic Advising Centre (AAC): <https://carleton.ca/academicadvising/>
- Centre for Student Academic Support (CSAS): <https://carleton.ca/csas/>
- Equity & Inclusivity Communities: <https://carleton.ca/equity/>

Off Campus Resources:

- Distress Centre of Ottawa and Region: (613) 238-3311 or TEXT: 343-306-5550, <https://www.dcottawa.on.ca/>
- Mental Health Crisis Service: (613) 722-6914, 1-866-996-0991, <http://www.crisisline.ca/>
- Empower Me: 1-844-741-6389, <https://students.carleton.ca/services/empower-me-counselling-services/>
- Good2Talk: 1-866-925-5454, <https://good2talk.ca/>
- The Walk-In Counselling Clinic: <https://walkincounselling.com>

8. Requests for Academic Accommodations

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

Informal accommodation due to short-term incapacitation: If you require an extension for assignments or the midterm, please contact me in advance of the deadline and include in your request the Self-Declaration for Academic Considerations form (<https://carleton.ca/registrar/wp-content/uploads/self-declaration.pdf>). Note: final exam deferrals must be arranged through the Registrar's Office (<https://carleton.ca/registrar/deferral>).

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 accommodation regarding a formally-scheduled final exam, you must complete the Pregnancy Accommodation Form ([click here](#)).

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 [click here](#).

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, please request your accommodations for this course through the [Ventus Student Portal](#) 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. For final exams, the deadlines to request accommodations are published in the [University Academic Calendars](#). 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).

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 will 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>