

Introduction to Physical Geography – Fall 2023

Department of Earth and Environmental Sciences

WHEN: MON, WED, FRI: 2:35PM—3:25PM

WHERE: LIFE SCIENCES BUILDING (LSC), ROOM P4260 (PSYCHOLOGY WING)

Dalhousie University acknowledges that we are in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq People and pays respect to the Indigenous knowledges held by the Mi'kmaq People, and to the wisdom of their Elders past and present.

The Mi'kmaq People signed Peace and Friendship Treaties with the Crown, and section 35 of the Constitution Act, 1982 recognizes and affirms Aboriginal and Treaty rights. We are all Treaty people.

Dalhousie University also acknowledges the histories, contributions, and legacies of African Nova Scotians, who have been here for over 400 years.

COURSE INSTRUCTOR(S)

Name	Email	Office Hours
Professor: Jennifer M. Grek Martin	jgrekmartin@dal.ca	LSC Room, TBA
Teaching Assistant: Nina Golombek	nina.golombek@dal.ca	By email or in tutorial

COURSE OVERVIEW

This non-lab science course examines the nature of weather and climate, Earth's surface features and geomorphological processes as well as Earth's internal processes that contribute to landform development. An integral component of the course is the study of the representation and interpretation of physical geographic data through the examination of a variety of maps.

COURSE PREREQUISITES

None

COURSE EXCLUSIONS

None

COURSE DELIVERY

This course consists of an **in-person lecture component** that meets 3x per week (M, W, F @ 2:35pm-3:25pm) **and a separate in-person tutorial** that meets 1x per week. Tutorials are hands-on applications of lecture material; therefore, it is expected that you will attend both. Course registration involves **one** of the following tutorial times:

Monday: 11:35am-12:25pm (**T05**)Tuesday: 2:35pm-3:25pm (**T01**) **or** 4:35pm-5:25pm (**T03**) **or** 5:35pm-6:25pm (**T04**)Friday: 12:35pm-1:25pm (**T02**)

Tutorials are designed to help students further understand principles and applications of lecture material. Please bring a **pencil, a ruler, and an eraser to all tutorials**.

If you miss a lecture: Lectures will not be recorded, but lecture slides will be provided via Brightspace.

If you miss a tutorial: Email Nina Golombek and I ASAP. We will arrange a make-up deadline or grade redistribution.

My goal is to give you a firm grounding (no pun intended!) in physical geography, whether as part of your degree program or simply to help you see the world around you in a different way. I am committed to teaching – in class, by email, in marking assignments and exams; you can expect me to be fair and to want you to learn. I encourage questions and a safe and inclusive learning environment.

For your part, I hope the respect will be mutual and that the next several weeks will be an enjoyable learning experience!

LEARNING OBJECTIVES

Students who take this class will learn about the processes responsible for the development of the Earth's geomorphological features, the evolution of these features through time, and the impact of humankind on the environment. Upon completion of the course, students will have developed basic skills in the interpretation of maps and data analysis and familiarized themselves with the practical applications of the course content in daily life.

ASSESSMENT:

Tutorials

8 tutorial assignments are each comprised of two parts. Part one will be handed in at the end of tutorial and the second part will be completed outside of class and handed in at the start of the next tutorial.

Assignment	Date	total%
Tutorial assignments (8 @ 6% each)	Weekly	48%
Quiz 01 (in class, paper, 50 minutes)	6 October	16%
Quiz 02 (in class, paper, 50 minutes)	3 November	16%
Quiz 03 (paper, 90 minutes)	(see Final exam schedule)	20%

Conversion of numerical grades to final letter grades follows the [Dalhousie Grade Scale](#)

A+ (90-100)	B+ (77-79)	C+ (65-69)	D (50-54)
A (85-89)	B (73-76)	C (60-64)	F (0-49)
A- (80-84)	B- (70-72)	C- (55-59)	

COURSE POLICIES ON MISSED OR LATE ACADEMIC REQUIREMENTS

LATE ASSIGNMENTS: Late assignments (i.e., Tutorials) will incur a mark deduction penalty of 10% per day. **No tutorial assignments will be accepted later than three days after the initial deadline unless Jennifer or Nina have approved an alternate deadline.**

MISSED QUIZ: Make-up quizzes will not be provided for any reason. A missed Quiz will result in a reweighting of the extant quiz or quizzes. For example, if you miss Quiz 01, then Quiz 02 = 24% and Quiz 03 = 28%; if you miss Quiz 02

you have a choice: Quiz 01 = 24% and Quiz 03 = 28% OR Quiz 03 = 36% (whichever results in a higher Final Grade); if you miss both Quiz 01 and Quiz 02, Quiz 03 is worth 52%.

COURSE POLICIES RELATED TO ACADEMIC INTEGRITY

Tutorials: collaboration during tutorials is encouraged but each submits their own work for assessment.

Quizzes: Individual work only.

Note: Generative AI (i.e., ChatGPT) may be very useful as a study tool! However, work turned in for assessment should not use generative AI for content.

COURSE MATERIALS

Luckily, there are a number of introductory textbooks that cover physical geography, so if you see a copy of one of the following resources for a reasonable price – go for it! The current Open Educational Resources (OERs) are also pretty good, so if you want a supplemental resource to the lectures that is freely available online, I will refer to the chapters from the following OER (PG) as readings in the course outline:

Patrich, Jeremy. (2020). *Physical Geography*. College of the Canyons/Zero Cost Textbook.

https://drive.google.com/drive/folders/1jHwx-yCtFKTpl8nrfpQPWfD_d3kQqzIF/

<https://oercommons.org/courses/introduction-to-physical-geography>

COURSE OUTLINE

Week/date	Topics for the week	Chapter (PG)	Due!
Week01	Introduction		
6, 8 September	Fundamentals of Physical Geography	Unit 1, pp. 7-14	
Week02	Fundamentals of Cartography	Unit 1, pp. 14-21; Unit 4 (all)	
11, 13, 15 September	Earth in Space	Unit 5 (all)	T1.1
Week03	Introduction to the Atmosphere	Unit 6, pp. 76-82	
18, 20, 22 September	Air Temperature and Pressure – Wind	Unit 6, pp. 82-95	T1.2 / T2.1
Week04	Air Moisture and Precipitation	Unit 7, pp. 95-110	
25, 27, 29 September	Introduction to Climate – global circulation patterns	Unit 7, pp. 110-114 & Unit 6, pp. 90-94	T2.2 / 3.1
Week05	*2 October: University Closed: Truth and Reconciliation Day Observed *4 October: Last day to drop Fall courses without a 'W'		
4, 6 October	Climate Change, Global Warming, Desertification	Unit 7	
	Quiz 01 (16%) – 6 October	Unit 1, Units 4-7	

Week06	<i>*9 October: University Closed: Thanksgiving Day Observed</i>		
11, 13 October	Introduction to the Lithosphere – Rocks and the Rock Cycle Plate Tectonics	Units 8-11, Unit 13	T3.2 / 4.1
Week07	Earthquakes and Tectonic Landforms	Unit 14	
16, 18, 20 October	Volcanoes	Unit 15	T4.2 / 5.1
Week08	Weathering and Slope Processes	Unit 12	
23, 25, 27 October	Aeolian Environments and Coastal Processes	Units 18, 16	T5.2 / 6.1
Week09	Soils	Unit 12	
30 Oct; 1, 3 Nov	Quiz 02 (16%) – 3 November <i>*2 November: Last day to drop Fall courses with a 'W'</i>	Units 8-16, 18	
Week10	Introduction to Ecosystems	TBA	
6, 8, 10 November	Biogeography	TBA	T6.2 / 7.1
13-17 Nov	FALL STUDY BREAK!!		
Week11	Introduction to the Hydrosphere	Unit 17	
20, 22, 24 November	Fluvial Geomorphology I	Unit 17	T7.2 / 8.1
Week12	Fluvial Geomorphology II	Unit 17	
27, 29 Nov; 1 Dec	Glaciers and Glacial Environments	Unit 19	T8.2
4 December	Course Wrap-up and Review for Quiz 03. See Final Exam Schedule for Day and Time of Quiz 03 (20%)	All Units	

FINAL EXAM (check schedule): **Quiz03 (Material covered: 5 September – 4 December) (30%)**

Note: The final exam will focus on material from 6 November – 4 December, with 2 long answer questions from previous quizzes, one question from each quiz.

University Policies and Statements

Recognition of Mi'kmaq Territory

Dalhousie University would like to acknowledge that the University is on Traditional Mi'kmaq Territory. The Elders in Residence program provides students with access to First Nations elders for guidance, counsel, and support. Visit or e-mail the Indigenous Student Centre at 1321 Edward St or elders@dal.ca. Additional information regarding the Indigenous Student Centre can be found at:

https://www.dal.ca/campus_life/communities/indigenous.html

Internationalization

At Dalhousie, 'thinking and acting globally' enhances the quality and impact of education, supporting learning that is "interdisciplinary, cross-cultural, global in reach, and orientated toward solving problems that extend across national borders." Additional internationalization information can be found at:

<https://www.dal.ca/about-dal/internationalization.html>

Academic Integrity

At Dalhousie University, we are guided in all our work by the values of academic integrity: honesty, trust, fairness, responsibility, and respect. As a student, you are required to demonstrate these values in all the work you do. The University provides policies and procedures that every member of the university community is required to follow to ensure academic integrity. Additional academic integrity information can be found at: https://www.dal.ca/dept/university_secretariat/academic-integrity.html

Accessibility

The Student Accessibility Centre is Dalhousie's centre of expertise for matters related to student accessibility and accommodation. If there are aspects of the design, instruction, and/or experiences within this course (online or in-person) that result in barriers to your inclusion, please contact the Student Accessibility Centre (https://www.dal.ca/campus_life/academic-support/accessibility.html) for all courses offered by Dalhousie with the exception of Truro. For courses offered by the Faculty of Agriculture, please contact the Student Success Centre in Truro (<https://www.dal.ca/about-dal/agricultural-campus/student-success-centre.html>)

Conduct in the Classroom – Culture of Respect

Substantial and constructive dialogue on challenging issues is an important part of academic inquiry and exchange. It requires willingness to listen and tolerance of opposing points of view. Consideration of individual differences and alternative viewpoints is required of all class members, towards each other, towards instructors, and towards guest speakers. While expressions of differing perspectives are welcome and encouraged, the words and language used should remain within acceptable bounds of civility and respect.

Diversity and Inclusion – Culture of Respect

Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. We stand for equality. Dalhousie is strengthened in our diversity. We are a respectful and inclusive community. We are committed to being a place where everyone feels welcome and supported, which is why our Strategic Direction prioritizes fostering a culture of diversity and inclusiveness (Strategic Priority 5.2). Additional diversity and inclusion information can be found at:

<http://www.dal.ca/cultureofrespect.html>

Student Code of Conduct

Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student Conduct allows Dalhousie to take disciplinary action if students don't follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner - perhaps through a restorative justice process. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution. The full Code of Student Conduct can be found at:

https://www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.html

Fair Dealing Policy

The Dalhousie University Fair Dealing Policy provides guidance for the limited use of copyright protected material without the risk of infringement and without having to seek the permission of copyright owners. It is intended to provide a balance between the rights of creators and the rights of users at Dalhousie.

Additional information regarding the Fair Dealing Policy can be found at:

https://www.dal.ca/dept/university_secretariat/policies/academic/fair-dealing-policy-.html

Originality Checking Software

The course instructor may use Dalhousie's approved originality checking software and Google to check the originality of any work submitted for credit, in accordance with the Student Submission of Assignments and Use of Originality Checking Software Policy. Students are free, without penalty of grade, to choose an alternative method of attesting to the authenticity of their work and must inform the instructor no later than the last day to add/drop classes of their intent to choose an alternate method.

Additional information regarding Originality Checking Software can be found at:

https://www.dal.ca/dept/university_secretariat/policies/academic/student-submission-of-assignments-and-use-of-originality-checking-software-policy-.html

Student Use of Course Materials

Course materials are designed for use as part of this course at Dalhousie University and are the property of the instructor unless otherwise stated. Third party copyrighted materials (such as books, journal articles, music, videos, etc.) have either been licensed for use in this course or fall under an exception or limitation in Canadian Copyright law. Copying this course material for distribution (e.g. uploading to a commercial third-party website) may lead to a violation of Copyright law.