

ERTH 1080

Instructor: Dr. **Lexie Arnott** (Lexie@dal.ca)

Office: LSC 3606 (Oceanography wing)

Classes: Hicks 212 9:35-10:25am

Monday-Wednesday-Friday

Office Hours: <https://bit.ly/3A8yDLb>

Class Requirements: TopHat (Dal bookstore)

<https://bookstore.dal.ca/textbooks/textbooks/top-hat>

GEOLOGY 1

Lab Instructor: **Mike Young** (Mike.Young@dal.ca)

Office: LSC 2055A

Labs: LSC 2055

Wednesday (B03) 11:35am-2:25pm

Wednesday (B04) 2:35-5:25pm

Friday (B01) 11:35am-2:25pm

Office Hours: email for appointment

Textbook: Laboratory Manual for Introductory Geology 4th Edition by Ludman and Marshak (also used for EARTH 1091)

Fall 2022

Land acknowledgement: *Throughout this term we will be studying about the Earth Sciences in Traditional Mi'kmaq Territory.*

Course Summary

This is an introductory Earth Sciences (geology) course: 3 credit hours, with a lab. EARTH 1080 is a required course for Earth Science majors; an excellent course for anyone requiring a lab credit course or interested in Earth Sciences. This course only requires a minimal background in science and math; no prior geology is required! There are no prerequisites.

Calendar Description

This course focuses on the solid earth (geosphere) and how it evolved throughout Earth's vast history and continues to evolve today. The processes involved are recorded in the rocks and minerals of our earth, and we explore these natural processes and materials as a way to understanding our earth.

Course Outcomes:

- Identify and classify common earth materials and the processes that form them, by interpreting the evidence within the rocks themselves
- Explain plate tectonic theory and begin to apply the principles in understanding earth materials and processes
- Describe the essential nature of planet earth in terms of physical and chemical composition, and the distribution of materials within and on earth
- Identify and explain the basic principles of spatial, temporal, and dynamic thinking about planet earth
- Begin to develop a questioning approach to interpreting information about the physical earth and "think like a geologist"

Fall 2022 Covid Guidelines for EARTH 1080

- **Masks will be required** in all indoor classrooms (Hicks 212) and instructional spaces (LSC 2055), supported by the high-quality ventilation standards set throughout the pandemic.
- All members of our Dalhousie community are expected to **stay home when sick**.

Brightspace Learning Management System (LMS):

Online quizzes, important course announcements, and discussion forums are delivered through the Brightspace Learning Management System. Lecture PowerPoint slides will be posted, but lecture recording will not. Student Declaration of Absence:

This course has opted into the student declaration of absence in lieu of sick notes for the in-class tests. Please refer to <https://bit.ly/2NJS8jw> for specific details about the use of the Student Declaration of Absence. This mechanism is meant to substitute for sick notes from a doctor related to short absences (less than three days) and does not provide an automatic exemption from any missed assessments. Accommodating the absence is at the discretion of the course instructor. Student Declarations of Absence are only necessary for the two in class tests (see the dropbox under "Assignments"). SDAs are not required for missed Lab or classes (see above).

Evaluation

Evaluation components	%
Lab Exercises (7 labs)	15
Lab Quizzes (two)	15 (2x7.5% each)
In class (includes TopHat mark)	10
Brightspace Quiz/Assignments	10
Tests (two)	20 (2x10% each)
Final Exam	30

Marks will NOT be reweighted at the end of term. The mark you earn is the mark you receive.

Note: You MUST pass BOTH the lab component and the non-lab component in order to pass the course. (50% is a passing grade).

Conversion of numerical grades to Final Letter Grades follows the Dalhousie Common Grade Scale

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

Labs

Labs begin the week of September 12th. All labs are scheduled to be in-person. Due to physical distancing measures and room capacities, students must attend their assigned lab section. B03: Wednesdays 11:35-2:35; B04: Wednesdays 2:35-5:25; and B01: Fridays 11:35-2:25. Room 2055 Life Sciences Centre.

Mandatory lab manual: Laboratory Manual for Introductory Geology, Ludman and Marshak (4th Edition) is available at the bookstore as either E-book or in print.

<https://bookstore.dal.ca/CourseSearch/?course%5B%5D=SUB,FALL22,ERTH,ERTH1080,01&>

The labs are worth a total of 30% of the course grade. Seven lab exercises account for 15% and two in-lab rock and mineral identification quizzes account for 15%. Lab exercises will be completed in small groups and will be graded and returned at the beginning of the following lab period.

Labs will be introduced at the beginning of each lab period, a handout will be provided, and labs are designed to be completed in the 3-hour lab period. Most labs are completed as group exercises. If you require more time, labs will be accepted up to 24 hours after your assigned lab period, but you will need to coordinate with your lab partners. Beyond the 24-hour grace period, labs will be penalized 10%/day up until the following lab period when they will not be accepted.

Students who cannot attend lab periods in-person due to required quarantine or isolation will be given extra time on a case-by-case basis. Contact the lab instructor before the lab period to make alternate arrangements.

Online quizzes and assignments

Throughout the term there will be short weekly online assignments and quizzes in BrightSpace. Each of these activities will be weighted equally. The best 85% of these make up your mark for this component; there will **be no make-up**.

In class activities

Throughout the term there will be daily activities and quizzes during class time. These are intended to aid your learning. The activities will include your in-class "TopHat" questions. Each of these activities will be weighted equally. The best 85% of these make up your mark for this component to accommodate absences; there will **be no make-up for in class-activities**. No SDA is necessary. Subscription to TopHat : <https://bookstore.dal.ca/textbooks/textbooks/top-hat>

Tests

There will be two tests, worth 10% each. These are "in class" and "closed book" tests. The dates are October 14th and November 4th. You will need to bring a pen or pencil. Any other requirements will be announced in class and on BrightSpace. There are no make up tests; if you miss a test due to illness, family emergency, or other acceptable reason, the exam will have a higher value (40%). Missed tests require a Student Declaration of Absence (see below).

Final Exam

The Faculty of Science requires all first-year science classes to have a formal exam (December 9th -20th). **Do not make travel arrangements until after the exam schedule is posted** in early October. Accommodations will not be made for students who leave before the scheduled exam. The final exam is cumulative. The exam will be in person and closed book. Required materials for the exam will be announced in class and on BrightSpace.

Week of	Lectures (MWF)	Labs (W/F)	Other
Sept 5	Introduction to Earth Sciences		
Sept 12	Plate Tectonics	Lab 1 – Plate Tectonics	Must have TopHat by Sept 12 th
Sept 19	Minerals	Lab 2 – Minerals I	
Sept 26	Igneous Rocks, Melting	No Lab (Holiday Fri, Sept 30)	Truth and Reconciliation Day (Sept 30- no class)
Oct 3	Igneous and volcanoes	Lab 3 – Minerals II	
Oct 10	Weathering and Sediments	Lab 4 – Igneous Rocks	Thanksgiving (Oct 10- no class) Test Friday, Oct 14th (in class); Up to and including material covered Oct 7 th
Oct 17	Sedimentary Rocks	Lab 5 – Sedimentary Rocks	
Oct 24	Depositional Environments	Lab Quiz 1 (Minerals & Igneous)	
Oct 31	Metamorphism	No Lab	
Nov 7	Study Break	Study Break	Study Break
Nov 14	Metamorphism	Lab 6 – Metamorphic rocks	Test Friday, Nov 18th (in class); Up to and including material covered Nov 4 th
Nov 21	Structural Geology	Lab 7 – Geol Time/Structures	
Nov 28	Geologic Time	Lab Quiz 2 (all Rocks & Minerals)	
Dec 5	TBD		
Dec 9-20	Exam: Date TBD		Final Exam (Cumulative)

***Lecture dates are subject to change.**

Faculty of Science Course Syllabus (Section B) (revised April-2022)
Fall/Winter 2022-23
ERTH 1080

University Policies and Statements

This course is governed by the academic rules and regulations set forth in the University Calendar and by Senate

Academic Integrity

At Dalhousie University, we are guided in all of our work by the values of academic integrity: honesty, trust, fairness, responsibility and respect (The Center for Academic Integrity, Duke University, 1999). As a student, you are required to demonstrate these values in all of 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.

Information: https://www.dal.ca/dept/university_secretariat/academic-integrity.html

Accessibility

The Advising and Access Services Centre is Dalhousie's centre of expertise for student accessibility and accommodation. The advising team works with students who request accommodation as a result of a disability, religious obligation, or any barrier related to any other characteristic protected under Human Rights legislation (Canada and Nova Scotia).

Information: https://www.dal.ca/campus_life/academic-support/accessibility.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.

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

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

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

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 (1321 Edward St) (elders@dal.ca).

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

Important Dates in the Academic Year (including add/drop dates) <https://academiccalendar.dal.ca/Catalog/ViewCatalog.aspx?pageid=viewcatalog&catalogid=117&chapterid=-1&topicgroupid=31821&loadusercredits=False>

University Grading Practices

https://www.dal.ca/dept/university_secretariat/policies/academic/grading-practices-policy.html

Faculty of Science Course Syllabus (Section C) (revised April-2022)
Fall/Winter 2022-23
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Student Resources and Support

Advising

General Advising https://www.dal.ca/campus_life/academic-support/advising.html

Science Program Advisors: <https://www.dal.ca/faculty/science/current-students/undergrad-students/degree-planning.html>

Indigenous Student Centre: https://www.dal.ca/campus_life/communities/indigenous.html

Black Students Advising Centre: https://www.dal.ca/campus_life/communities/black-student-advising.html

International Centre: https://www.dal.ca/campus_life/international-centre/current-students.html

Academic supports

Library: <https://libraries.dal.ca/>

Writing Centre: https://www.dal.ca/campus_life/academic-support/writing-and-study-skills.html

Studying for Success: https://www.dal.ca/campus_life/academic-support/study-skills-and-tutoring.html

Copyright Office: <https://libraries.dal.ca/services/copyright-office.html>

Fair Dealing Guidelines <https://libraries.dal.ca/services/copyright-office/fair-dealing.html>

Other supports and services

Student Health & Wellness Centre: https://www.dal.ca/campus_life/health-and-wellness.html

Student Advocacy: <https://dsu.ca/dsas>

Ombudsperson: https://www.dal.ca/campus_life/safety-respect/student-rights-and-responsibilities/where-to-get-help/ombudsperson.html

Safety

Biosafety: <https://www.dal.ca/dept/safety/programs-services/biosafety.html>

Chemical Safety: <https://www.dal.ca/dept/safety/programs-services/chemical-safety.html>

Radiation Safety: <https://www.dal.ca/dept/safety/programs-services/radiation-safety.html>

Scent-Free Program: <https://www.dal.ca/dept/safety/programs-services/occupational-safety/scent-free.html>

Dalhousie COVID-19 information and updates: <https://www.dal.ca/covid-19-information-and-updates.html>