

Physical & Environmental Sciences UNIVERSITY OF TORONTO

S C A R B O R O U G H

WINTER 2022 GRADUATE COURSE OUTLINE

EES1106H Geological Evolution and Environmental History of North America Class: Wednesdays 7-9 pm Lecturer: Veronica Di Cecco v.dicecco@utoronto.ca Virtual Office Hours: Thursdays from 6-8 pm

COURSE DESCRIPTION

This course reviews the geological and environmental evolution of the North American continent over the past 4 billion years by exploring the range of plate tectonics involved in continental growth and how those processes continue today. It will explore major changes in terrestrial and marine environments through geologic time and associated organisms and natural resources of economic importance and will conclude with an examination of recent human anthropogenic influences on our environment especially in regard to urban areas and associated problems of waste management, resource extraction, geological hazards, and the impacts of urbanization on watersheds and water resources. **Note** – in previous years this course has included a weekend field trip, however due to the ongoing public health situation, this will be replaced with a set of mid course quizzes.

COURSE OBJECTIVES

The aim of this course is to provide you with a context and deeper understanding of how the land we live on came to be. We will learn about geological processes and how this geological history influences "biological destiny."

However, my learning goals for you are only half the picture. In the first few classes we will talk about what you want to get out of this course, and I will do my best to work in those topics.

SCHEDULE

SCHEDOLE			_
Date	Lecture Plan	Deliverables	
	Scope of course, ice breaker,		
12-Jan	learning expectations. Planet	-	
	formation		
19-Jan	plate tectonics and the rock cycle	Short Quiz at end of class (3%)	
26-Jan	continental formation, Mid term		
	project assigned	-	
02-Feb	The Canadian Shield	Short Quiz at end of class (3%)	
09-Feb	The Interior Platform - The	mid term executive summaries	
	Paleozoic Seas	due (1 <mark>0</mark> %)	
16-Feb	Mid term presentations	mid term presentations (20%)	
23-Feb	Reading week	-	
02-Mar	Eastern Canada. Final Project Assigned	Short Quiz at end of class (3%)	
		National Park presentation	
		(10%)	_
09-Mar	Western Canada	Short Quiz at end of class (3%)	
		National Park presentation	
		alternate date (10%)	_
16-Mar	Glaciation	Final Project Outline Due	
		(10%)	_
23-Mar	Mining in Canada	-	
30-Mar	the Anthropocene and Climate	Short Quiz at end of class (3%)	
	Change	Short due at enu or class (5%)	
06-Apr	final presentations	Final Report Due (20%). Final	
		Presentations (15%)	

EVALUATION

15% - 5 short quizzes spread throughout the course. These will help me gauge your understanding so that I can adjust future lectures to suit.

10% - a two-page executive summary of your team mid-term project. Due February 9th during class time.

10% - a presentation related to geologic history and features of a national park in either Eastern or Western Canada. To be given during the associated lecture, either March 2 or March 9.

20% - a 20 minute team midterm presentation given in class on February 16th. Topics will be given out January 26th.

10% - Proposal for your final term project. Due in class March 16th.

20% - Final report due in class April 6th.

15% - Final individual presentations presented in class April 6th.

Late deliverables will be deducted at a rate of 10% per day. Late presentations cannot be marked.

The evaluation will be carried out in accordance with the Graduate Grading and Evaluation Practices Policy (and how that policy is interpreted and applied in this Dept.) http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/PDF/grading.pdf

VERIFICATION OF ILLNESS

A **Verification of Illness** (also known as a "doctor's note") is temporarily not required. Students who are absent from academic participation for any reason (e.g., COVID, cold, flu and other illness or injury, family situation) and who require consideration for missed academic work should report their absence through the online absence declaration. The declaration is available on <u>ACORN</u> under the Profile and Settings menu. Students should also advise their instructor *of* their absence. Visit <u>COVID-19</u> Information for University of <u>Toronto Students</u> page on the Vice-Provost, Students website for information on this and other frequently asked questions.

EMERGENCY PLANNING

Students are advised to consult the university's preparedness site (http://www.preparedness.utoronto.ca) for information and regular updates regarding procedures relating to emergency planning.

ACCESSIBILITY NEEDS

The University of Toronto is committed to accessibility. If you require accommodations for a disability or have any accessibility concerns about the course, the classroom or course materials, please contact the UTSC Accessibility Services as soon as possible: <u>http://www.utsc.utoronto.ca/~ability/</u> We also suggest you also refer to the following University of Toronto Scarborough Library link: <u>http://utsc.library.utoronto.ca/services-persons-disabilities</u>

PLAGIARISM

University of Toronto Code of Behaviour on Academic Matters states that "it shall be an offence for a student knowingly: to represent as one's own any idea or expression of an idea or work of another in any academic examination or term test or in connection with any other form of academic work, i.e., to commit plagiarism."

For accepted methods of standard documentation formats, including electronic citation of internet sources please see the UofT writing website at <u>http://advice.writing.utoronto.ca/using-sources/documentation</u>.

The full Code of Behaviour regulations could be found from consulting https://www.sgs.utoronto.ca/policies-guidelines/academic-integrity-resources/

The University of Toronto has a site license that enables all faculty and students to use Ouriginal, a new plagiarism prevention system. To learn more about the plagiarism detection software - https://q.utoronto.ca/courses/46670/pages/integration-plagiarism-detection-tool. Instructors can email quercus.utsc@utoronto.ca/courses/46670/pages/integration-plagiarism-detection-tool. Instructors can email quercus.utsc@utoronto.ca for direct assistance.

Normally, students will be required to submit their course essays to the University's plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the tool's reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the Centre for Teaching Support & Innovation web site (<u>https://uoft.me/pdt-fag</u>)

WRITING AND ENGLISH LANGUAGE

As well as the faculty writing support, please see <u>English Language and writing support at University of Toronto</u> or the <u>Centre for Teaching and Learning</u> at UTSC.

The following is also useful:

Sylvan Barnett, A Short Guide to Writing About Art. 5-7th edition (New York: Harper-Collins, 1997) William Strunk Jr., E.B. White. The Elements of Style (New York: MacMillan Publishing)

LATE WORK

Late deliverables will be deducted at a rate of 10% per day. Late presentations cannot be marked.

READINGS

This textbook is the basis for the lectures and topics in this course and is available in the bookstore:

Eyles, N. and Miall, A. 2016. Canada Rocks: The Geologic Journey, 2nd Edition.

Fitzhenry & Whiteside

If you do not have a background in geology, I highly recommend purchasing this book. I will be working off the first edition but both editions can be used interchangeably.