

University of Toronto-Scarborough
Department of Physical and Environmental Sciences
EESB15H3 Earth History - Fall 2016

Instructor: Dr. Heidi Daxberger, ESCB 466, phone: 416-208-5136, heidi.daxberger@utoronto.ca

Office hours: Wednesday 4 pm to 5 pm, and by appointment

Teaching Assistant: TBA

Lectures: Part 1: Lectures – Mondays: 3 pm – 5 pm (IC230)

Part 2: In-class exercise - Thursdays: 8 am - 10 am (IC230)

[First lecture is on Thursday Sept. 1, 8 - 10 am in IC230!!](#)

Overview:

In this course you will learn about Earth's 4.56 billion years long history, the building blocks of our planet and the most important geological processes and concepts to better understand the evolution of Earth through time. A special focus will be given to the evolution of and the processes happening on the North American Continent during these 4.56 billion years.

Igneous, sedimentary and metamorphic rocks are not only the building blocks of our planet, but also represent a detailed record of how Earth evolved during the past 4.56 billion years. After plate tectonics started in the early age of Earth, they reshaped our planet's surface constantly. The fossil and rock records help us to delineate plate tectonic movement and therewith the evolution of Earth's continental masses we live on today. However, the long ongoing investigation of past and current geological processes does not only provide us with information of the past, but also allows us a glimpse into the future and to model future continent configurations.

The accumulated knowledge of short- and long-term geological processes, as well as rock and sediment properties, becomes more and more important as the human population grows. With population growth, more natural resources are required and more damage, for example in form of soil contamination, is done to our environment. Therefore we need to understand processes, which lead to certain geological structures, formation of ore deposits, fresh water storage, and the development of today's environment to efficiently use and protect all resource components and most importantly the environment for future generations.

This course also aims to introduce and develop the following geo-scientific and soft skills:

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- Development of peer and self-assessment skills during teamwork.
- Oral and visual presentation skills during short team presentation of findings derived during in-class exercises and the field trip.

Literature - Required: H. Levin, The Earth Through Time, 10th edition, Wiley

Literature - Also used but not required:

- St. M. Stanley & J.A. Luczaj, Earth System History, 4th edition, Freeman
- R. Wicander & J.S. Monroe, Historical Geology, 7th edition, Brooks/Cole – Cengage Learning
- Eyles, Ontario Rocks, 2002, Fitzhenry & Whiteside

Lecture Schedule - Subject to change:

Week Date

Marking Scheme:

9 in-class exercises (each 4%)	36%
3 Online Quizzes (each 2%)	6%
Field trip	6%
I-Clicker (Lect. Participation)	4%
Bell Ringer (Min., Rock, Fossil ID)	2%
Midterm (in class)	18%
Final Exam (date to be announced)	28%
Total	100%

Lectures and in-class exercises – Group or Individual Work:

ALL students are expected to attend ALL lectures, which include graded in-class exercises.

It is the responsibility of the student to ensure that notes are obtained for any classes missed.

Nine In-class exercises (Thursdays, 8 -10 am) during which attendance will be taken and exercise has to be handed in at end of 2 hours. Group and/or individual work. Worth 4 % each of final grade.

i-clicker (Lecture participation) – Individual

grade).

Furthermore, we are outdoors and therefore some preparations are needed:

- Be prepared for any kind of weather (sun vs. rain: rain jacket, sun screen, hat)
- Sturdy footwear (at least running shoes, preferably hiking boots) -> **NO open-toed shoes, sandals, or heels!!!**
- Adequate clothing (long pants, layers, rain cloth)
- Safety goggles or light tinted sun glasses
- Daypack with an adequate amount of water and lunch (+ smaller snack)
- If possible small camera, field book (e.g. small notebook), pencil & pen

Additional required safety equipment (e.g. hard hats, additional safety goggles) will be supplied by the department.

Online Quizzes – Individual Work:

Three onq

Final Examination:

The final examination will be 3 hours, is cumulative (1/3 before midterm, 2/3 after midterm) and will be scheduled by the University and held during the December examination period. The exam will contain multiple choice, true and false and short answer questions. Figures, movies and animations are examinable, as are in-class participation/lab type exercises. The exam will be more heavily focused on post-midterm material. The assigned readings are examinable, the material covered in lecture is weighted more heavily than the readings.

Library Services:

Research Help: University of Toronto Scarborough Library

Staff at the UTSC Library will be happy to help you find the resources you need for your assignments, and learn the research skills you will need for success at university.

Research help is available by phone, e-mail, chat, or in-person in the Library.

For more information, please see the Library's Help Guide for UTSC Students: http://guides.library.utoronto.ca/utsc_help

Need in-depth or department specific assistance? Contact Sarah Forbes, Liaison Librarian for Physical and Environmental Sciences: <http://uoft.me/smforbes>

Blackboard:

Lecture and lab material will be posted on and Online Quizzes will be done through blackboard. Please check daily for updates. Blackboard: <https://portal.utoronto.ca>

Academic Integrity Statement:

Academic integrity is one of the cornerstones of the University of Toronto. It is critically and important both to maintain our community which honours the values of honesty, trust, respect, fairness and responsibility and to protect you, the students within this community, and the value of the degree towards which you are all working so diligently. According to Section B of the University of Toronto's Code of Behaviour on Academic Matters, which all students are expected to know and respect, it is an offence for students:

- To use someone else's **ideas or words** in their own work without acknowledging that those ideas/words are not their own with a citation and quotation marks, i.e. to commit plagiarism.
- To include false, misleading or concocted **citations** in their work.
- To obtain **unauthorized assistance** on any assignment/exercise/quiz. **This includes the use of i-clicker !!!**
- To provide **unauthorized assistance** to another student. This includes showing another student completed work.
- To submit their own work for credit in **more than one course** without the permission of the instructor.
- To falsify or alter any **documentation** required by the University. This includes, but is not limited to, doctor's notes.
- To use or possess an **unauthorized aid** in any test or exam.

There are other offences covered under the Code, but these are by far the most common. Please respect these rules and the values, which they protect. It is your responsibility to ensure that your work maintains academic integrity. If you have any concerns please see the instructor before a potential problem arises. Please familiarize yourself with the Code ([htt](#)

zero, a reduction in final grades, denial of privileges, a monetary fine, failure in the course, suspension, permanent record, a recalling of degrees/diplomas and certificates, or expulsion.

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 Accessibility Services as soon as *Act d*