EESB18H3 F

Natural Hazards

Fall 2023 Syllabus

## Course Meetings

### EESB18H3 F

| **Section** | **Day & Time** | **Delivery Mode & Location** |
| --- | --- | --- |
| **LEC01** | Tuesday, 4:00 PM - 7:00 PM | In Person: SW 319 |

Refer to ACORN for the most up-to-date information about the delivery and location of the course meetings.

## Course Contacts

**Instructor:** Prof. Mandana (Mandy) Meriano

**Email:** [m.meriano@utoronto.ca](mailto:m.meriano@utoronto.ca)

**Phone:** 416-208-2775

**Office Hours and Location:** Wednesday 10am-12pm

Zoom Meeting

https://utoronto.zoom.us/j/88469773883

Meeting ID: 884 6977 3883

Passcode: 788783

**Additional Notes:** Lecture on September 05 will be Online (Synchronous): Tuesday 4-7pm

Zoom Meeting Details:

https://utoronto.zoom.us/j/84248181255

Meeting ID: 842 4818 1255

Passcode: 070011

**Teaching Assistant:** Sayuri Sagisaka

**Email:** [sayuri.sagisaka@mail.utoronto.ca](mailto:sayuri.sagisaka@mail.utoronto.ca)

**Office Hours and Location:** TBA

## Course Overview

This course is an investigation of the geological background and possible solutions to major hazards in the environment.  
Environmental hazards to be studied include: landslides, erosion, earthquakes, volcanic eruptions, asteroid impacts, flooding, glaciation, future climate change, subsidence, and the disposal of toxic wastes. This may be of interest to a wide range of students in the life, social, and physical sciences; an opportunity for the non-specialist to understand headline-making geological events of topical interest. No prior knowledge of the Earth Sciences is required.

### Course Learning Outcomes

By the end of the course students will have developed an understanding of natural hazards. The course aims to give learners a clear conceptualization of the basic issues surrounding the causes, effect and possible management of environmental hazards.

**Prerequisites**: None

**Corequisites**: None

**Exclusions:** (EESA05H3), GLG103H

**Recommended Preparation**: None

**Credit Value:** 0.5

## Course Materials

**Required textbook:** Keller, E.A., and DeVecchio, D.E. 2019. Natural Hazards Earth's Processes as Hazards, Disasters, and Catastrophes, 5/E. Routledge.

The course textbook is available from the UTSC Bookstore.

Digital version of the textbook can be purchased here:

<https://uoftbookstore.vitalsource.com/textbooks?term=9781351673709>

## Marking Scheme

| **Assessment** | **Percent** | **Details** | **Due Date** |
| --- | --- | --- | --- |
| **Online/Quercus Quizzes** | 10% | The online quizzes will be carried out in Quercus. Each quiz will consist of 10 multiple choice questions ad will be 8-minutes long in duration. Quizzes will be available for 24 hours on Quercus on their assigned dates. | 2023-09-19,2023-10-03,2023-10-31,2023-11-14,2023-11-28 |
| **Assignment 1** | 5% | The Term Assignment 1 has been designed to encourage students to perform literature research, Google Earth exercises, and communicate findings in writing. | 2023-09-26 |
| **Assignment 2** | 10% | The Term Assignment 2 has been designed to encourage students to perform literature research, Google Earth exercises, and communicate findings in writing. | 2023-11-14 |
| **Term Test 1** | 20% | Term Test 1 is based on material covered in lectures and readings up to and including the class before the Term Test. Term Test 1 will consist of multiple choice questions. | 2023-10-17 |
| **Term Test 2** | 20% | Term Test 1 is based on material covered in lectures and readings up to and including the class before the Term Test. Term Test 2 will be in written format. | 2023-11-07 |
| **Final Exam** | 35% | The final exam will be based on all term material (including readings and lectures). The final exam will consist of multiple choice and short answers. | Final Exam Period |

**Grading:**  Evaluation of your written work (in assignments and exams) takes into account organization and structure, style and presentation, as well as research and content.  Writing quality and content are both considered in grading.  Assignments will be graded for accuracy. Your work will be graded by a teaching assistant (TA). If you have a question or problem with the grade you receive, consult the TA. Your grade may be revised up or down based on the review.

### Late Assessment Submissions Policy

**Late assignments:** The late penalty is 10% per day.

**Absences:** If you need to miss a practical or term test for any legitimate reason, you must submit appropriate documentation within **three** business days of your absence. If the reason for your absence is medical, an official UTSC medical note must completed by a doctor who examined you while you were ill/injured (i.e. not after the fact). The medical note can be downloaded at: <http://www.utsc.utoronto.ca/~registrar/resources/pdf_general/UTSCmedicalcertificate.pdf>. Note that conditions ranked as mild or negligible will not be considered a valid excuse.

**Missed term work:** If a legitimate reason prevents you from submitting a piece of term work by its posted deadline, you must submit appropriate documentation within **three** business days of your absence. If the reason is medical, an official UTSC medical note must completed by a doctor who examined you while you were ill/injured (i.e. not after the fact). The medical note can be downloaded at: <http://www.utsc.utoronto.ca/~registrar/resources/pdf_general/UTSCmedicalcertificate.pdf>. Note that conditions ranked as mild or negligible will not be considered a valid excuse.

**Extensions:** Requests for an extension on an assignment must be tendered in writing in advance of the due date. In instances of illness, an official UTSC medical note must be completed by a physician (see above). Other notes are not acceptable. Extensions are granted at the discretion of the Professor (and the TA), and may be granted for other significant emergencies.

## Course Schedule

|  |  |
| --- | --- |
| **Week 1**  September 05 | Lecture on September 05 will be Online (Synchronous):  Zoom Meeting Details: <https://utoronto.zoom.us/j/84248181255> Meeting ID: 842 4818 1255 Passcode: 070011  An overview of the course, expectations, and objectives  A quick look at the textbook  Introduction to Natural Disasters  Ch.1 |
| **Week 2**  September 12 | Plate Tectonics  **Ch. 2** |
| **Week 3**  September 19 | **Quiz 1** (online/Quercus)  Earthquakes  Ch. 3 |
| **Week 4**  September 26 | **Due: Assignment 1**  Volcanoes and Tectonics  Ch.5 |
| **Week 5**  October 03 | **Quiz 2** (online/Quercus)  Mass Wasting  Ch. 7 |
| **Week 6**  October 17 | **Midterm Exam 1 (MC)** – during class time |
| **Week 7**  October 24 | Subsidence and soil expansion/contraction  Ch.8 |
| **Week 8**    October 31 | **Quiz 3** (online/Quercus)  Tsunamis  Ch.4 |
| **Week 9**  November 07 | **Midterm Exam 1 (written)** – during class time  Floods  Ch. 6 |
| **Week 10**  November 14 | **Due: Assignment 2**  **Quiz 4** (online/Quercus)  Coastal erosion  Ch. 11 |
| **Week 11**  November 21 | Climate change  Chs.9, 12 |
| **Week 12**  November 28 | **Quiz 5** (online/Quercus)  Complete any remaining lecture material - and begin Asteroids and mass extinction (time allowing)  Ch.14 |

## Policies & Statements

### Academic Integrity

The University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences.  
  
Potential offences in papers and assignments include using someone else's ideas or words without appropriate acknowledgement, submitting your own work in more than one course without the permission of the instructor, making up sources or facts, obtaining or providing unauthorized assistance on any assignment.  
  
On tests and exams, cheating includes using or possessing unauthorized aids, looking at someone else's answers during an exam or test, misrepresenting your identity, or falsifying or altering any documentation required by the University.

### Equity, Diversity and Inclusion

The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. U of T does not condone discrimination or harassment against any persons or communities.  
  
The University of Toronto is a richly diverse community and as such is committed to providing an environment free of any form of harassment, misconduct, or discrimination. In this course, I seek to foster a civil, respectful, and open-minded climate in which we can all work together to develop a better understanding of key questions and debates through meaningful dialogue. As such, I expect all involved with this course to refrain from actions or behaviours that intimidate, humiliate, or demean persons or groups or that undermine their security or self-esteem based on traits related to race, religion, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, gender identity, gender expression, age, marital status, family status, disability, receipt of public assistance or record of offences.

### University Land Acknowledgement

I wish to acknowledge this land on which the University of Toronto operates. For thousands of years, it has been the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit. Today, this meeting place is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land.

### Mandy Meriano Land Acknowledgement

I’ve always had a thing for that scent you smell after a rainfall. I love that smell so much that when I was a kid, I used to lick the clay bricks that lined our balcony because they would give off the same earthy scent. I guess it’s no surprise that I’ve spent so much time learning about - and working with earth and water. I think it’s through this work that I’ve made my connection with THIS Land which I like to acknowledge. I acknowledge the Indigenous Peoples who lived on this Land before us and continue to live upon it today. I like to pay tribute to the hopes and dreams they held and continue to hold for this Land. I feel blessed to be on this Land. I am grateful for its strength and potential below my feet, its heaven’s warmth on my skin, the tickle of its snowflakes on my tongue, the passing of its rivers between my fingers and - with some luck - the force of its wind on my back.

### Accommodations

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the AccessAbility Services Office as soon as possible.  
  
AccessAbility Services staff (located in Rm AA142, Arts and Administration Building) are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 416-287-7560 or email [ability.utsc@utoronto.ca](mailto:ability.utsc@utoronto.ca). The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

### Use of Generative Artificial Intelligence Tools

Students may use artificial intelligence tools, including generative AI, in this course as learning aids or to help produce assignments. However, students are ultimately accountable for the work they submit.  
  
Students may not use artificial intelligence tools for taking tests, writing research papers, creating computer code, or completing major course assignments. However, these tools may be useful when gathering information from across sources and assimilating it for understanding.  
  
The knowing use of generative artificial intelligence tools, including ChatGPT and other AI writing and coding assistants, for the completion of, or to support the completion of, an examination, term test, assignment, or any other form of academic assessment, may be considered an academic offense in this course.

### Recording of Classroom Material by Students

Recording or photographing any aspect of a university course - lecture, tutorial, seminar, lab, studio, practice session, field trip etc. – without prior approval of all involved and with written approval from the instructor is not permitted.

### Video Recording and Sharing (Download and Re-use Prohibited)

This course, including your participation, will be recorded on video and will be available to students in the course for viewing remotely and after each session.  
  
Course videos and materials belong to your instructor, the University, and/or other sources depending on the specific facts of each situation and are protected by copyright. Do not download, copy, or share any course or student materials or videos without the explicit permission of the instructor.  
  
For questions about the recording and use of videos in which you appear, please contact your instructor.