



# CAPILANO UNIVERSITY

COURSE OUTLINE		
<b>TERM: Summer 2023</b>	<b>COURSE NO: GEOG 210</b>	
<b>INSTRUCTOR:</b>	<b>COURSE TITLE: Natural Hazards</b>	
<b>OFFICE: LOCAL:</b> <b>E-MAIL: @capilanou.ca</b>	<b>SECTION NO(S):</b>	<b>CREDITS: 3.0</b>
<b>OFFICE HOURS:</b>		
<b>COURSE WEBSITE:</b>		

Capilano University acknowledges with respect the Liłwat7úl (Lil'wat), x<sup>w</sup>məθk<sup>w</sup>əyəm (Musqueam), shíshálh (Sechelt), Sḵw̓xwú7mesh (Squamish), and Səlílwətaʔ/Selilwitulh (Tseil-Waututh) people on whose territories our campuses are located.

## COURSE FORMAT

Three hours of class time, plus an additional hour delivered through on-line or other activities for a 15-week semester, which includes two weeks for final exams.

## COURSE PREREQUISITES/CO-REQUISITES

None.

## CALENDAR DESCRIPTION

This course is an introduction to the wide range of natural hazards throughout the world. Earthquakes, hurricanes, landslides, volcanic eruptions, floods and heatwaves are examples of natural processes that can be hazardous for people, property and habitat. Using local and worldwide examples, we will examine the characteristics of natural hazards and their immediate and long-term impacts. Students will assess different methods for hazard prediction, warning and mitigation, including the relevance of Indigenous approaches to hazards management. The status of disaster planning and preparedness will be critically reviewed both globally and locally. Students will have an opportunity to collaborate with local disaster resilience planners on a community-based project and develop skills in hazard data analysis, hazard map interpretation, observational fieldwork and professional report writing.

## COURSE NOTE

GEOG 210 is an approved Science course.

GEOG 210 is an approved Science and Technology course for Cap Core requirements.

## REQUIRED TEXTS AND/OR RESOURCES

The following textbook is required reading for this course and is available in digital or print format from the university bookstore.

Stephen Marshak, Robert Rauber and Neil Johnson (2022) *Natural Disasters: Hazards of a Dynamic Planet* (New York: WW Norton)

## COURSE STUDENT LEARNING OUTCOMES

On successful completion of this course, students will be able to do the following:

1. comprehend basic scientific principles, concepts, and methodologies that are foundational to hazard geography;
2. classify key types of hazards and identify associated geological, hydrological and meteorological processes that generate them;
3. demonstrate how hazard maps can be used for risk assessment and strategic disaster planning;
4. outline various impacts from different natural hazards in terms of physical, human, structural, economic and political factors;
5. recognize the value of Indigenous knowledge and practices in monitoring, mitigating and adapting to global and regional hazards.
6. identify ways in which humans can directly and indirectly contribute to natural hazard occurrences;
7. analyse and interpret data on hazard frequency and magnitude to assess changing risk outcomes.
8. demonstrate natural hazard geography literacy through effective written, verbal and multimedia skills and;
9. apply knowledge of local hazard geography to devise, design and demonstrate community-based solutions

Students who complete this Science and Technology course will be able to do the following:

1. Assess the cultural, economic, and political effects of technology.
2. Assess the impacts of human activity on natural systems and articulate ways in which environmental sustainability can be achieved.
3. Evaluate scientific information (e.g., distinguish primary and secondary sources, assess credibility and validity of information).
4. Explain how scientific inquiry is based on investigation of evidence and evolves based on new findings.

## COURSE CONTENT

WEEK	TOPIC
1	Introduction to Natural Hazards
2	Earth Systems and Plate Tectonics
3	Earthquakes
4	Tsunamis
5	Volcanoes
6	Mass wasting
7	Snow Avalanches
8	River Systems and Flooding
9	Atmosphere and Climate Change
10	Severe Storms
11	Extreme Cold and Heat Hazards
12	Waves, Currents, and Coastlines
13	Wildfires
14 and 15	<b>Final Exam Period</b>

**EVALUATION PROFILE**

Quizzes	10%
Activities and Assignments	20-25%
Project	20-25%
Midterm test	20-25%
Final exam	20-25%
<i>TOTAL</i>	<i>100%</i>

**GRADING PROFILE**

A+ = 90-100	B+ = 77-79	C+ = 67-69	D = 50-59
A = 85-89	B = 73-76	C = 63-66	F = 0-49
A- = 80-84	B- = 70-72	C- = 60-62	

**Incomplete Grades**

Grades of Incomplete "I" are assigned only in exceptional circumstances when a student requests extra time to complete their coursework. Such agreements are made only at the request of the student, who is responsible to determine from the instructor the outstanding requirements of the course.

**Late Assignments**

Assignments are due at the beginning of the class on the due date listed. If you anticipate handing in an assignment late, please consult with your instructor beforehand.

**Missed Exams/Quizzes/Labs etc.**

Make-up exams, quizzes and/or tests are given at the discretion of the instructor. They are generally given only in medical emergencies or severe personal crises. Some missed labs or other activities may not be able to be accommodated. Please consult with your instructor.

\*\*\* Accommodations can be made to honour community needs and traditional practices.

**Attendance**

Students are expected to attend all classes and associated activities.

**English Usage**

Students are expected to proofread all written work for any grammatical, spelling and stylistic errors. Instructors may deduct marks for incorrect grammar and spelling in written assignments.

**Electronic Devices**

Students may use electronic devices during class for note taking only.

**On-line Communication**

Outside of the classroom, instructors will (if necessary) communicate with students using either their official Capilano University email or eLearn; please check both regularly. Official communication between Capilano University and students is delivered to students' Capilano University email addresses only.

## UNIVERSITY OPERATIONAL DETAILS

### Tools for Success

Many services are available to support student success for Capilano University students. A central navigation point for all services can be found at: <https://www.capilanou.ca/student-services/>

**Capilano University Security: download the [CapU Mobile Safety App](#)**

### Policy Statement (S2009-06)

Capilano University has policies on Academic Appeals (including appeal of final grade), Student Conduct, Academic Integrity, Academic Probation and other educational issues. These and other policies are available on the University website.

### Academic Integrity (S2017-05)

Any instance of academic dishonesty or breach of the standards of academic integrity is serious and students will be held accountable for their actions, whether acting alone or in a group. See policy and procedures S2017-05 Academic Integrity for more information:

<https://www.capilanou.ca/about-capu/governance/policies/>

Violations of academic integrity, including dishonesty in assignments, examinations, or other academic performances, are prohibited and will be handled in accordance with the Student Academic Integrity Procedures.

**Academic dishonesty** is any act that breaches one or more of the principles of academic integrity. Acts of academic dishonesty may include but are not limited to the following types:

**Cheating:** Using or providing unauthorized aids, assistance or materials while preparing or completing assessments, or when completing practical work (in clinical, practicum, or lab settings), including but not limited to the following:

- Copying or attempting to copy the work of another during an assessment;
- Communicating work to another student during an examination;
- Using unauthorized aids, notes, or electronic devices or means during an examination;
- Unauthorized possession of an assessment or answer key; and/or,
- Submitting of a substantially similar assessment by two or more students, except in the case where such submission is specifically authorized by the instructor.

**Fraud:** Creation or use of falsified documents.

**Misuse or misrepresentation of sources:** Presenting source material in such a way as to distort its original purpose or implication(s); misattributing words, ideas, etc. to someone other than the original source; misrepresenting or manipulating research findings or data; and/or suppressing aspects of findings or data in order to present conclusions in a light other than the research, taken as a whole, would support.

**Plagiarism:** Presenting or submitting, as one's own work, the research, words, ideas, artistic imagery, arguments, calculations, illustrations, or diagrams of another person or persons without explicit or accurate citation or credit.

**Self-Plagiarism:** Submitting one's own work for credit in more than one course without the permission of the instructors, or re-submitting work, in whole or in part, for which credit has already been granted without permission of the instructors.

**Prohibited Conduct:** The following are examples of other conduct specifically prohibited:

- Taking unauthorized possession of the work of another student (for example, intercepting and removing such work from a photocopier or printer, or collecting the graded work of another student from a stack of papers);
- Falsifying one's own and/or other students' attendance in a course;
- Impersonating or allowing the impersonation of an individual;
- Modifying a graded assessment then submitting it for re-grading; or,
- Assisting or attempting to assist another person to commit any breach of academic integrity.

### **Sexual Violence and Misconduct**

All Members of the University Community have the right to work, teach and study in an environment that is free from all forms of sexual violence and misconduct. Policy B401 defines sexual assault as follows:

Sexual assault is any form of sexual contact that occurs without ongoing and freely given consent, including the threat of sexual contact without consent. Sexual assault can be committed by a stranger, someone known to the survivor or an intimate partner.

Safety and security at the University are a priority and any form of sexual violence and misconduct will not be tolerated or condoned. The University expects all Students and Members of the University Community to abide by all laws and University policies, including B.401 Sexual Violence and Misconduct Policy and B.401.1 Sexual Violence and Misconduct Procedure (found on Policy page <https://www.capilanou.ca/about-capu/governance/policies/>)

**Emergencies:** Students are expected to familiarise themselves with the emergency policies where appropriate and the emergency procedures posted on the wall of the classroom.