

Geohazards - Earth in Turmoil

Earth Sciences 104

Section: D100

Term: 2008 Fall

Instructor: Joe Koch

Discussion Topics: General: REQUIREMENT DESIGNATION: B-Sci

EASC 104 is an introduction to the range of geological hazards that affect the Earth, the environment and humanity. Topics covered will include the hazards and risks related to volcanic eruptions, earthquakes, landslides, geological material, geomagnetic storms and other potentially cataclysmic events. The forecasting and possible mitigation of these geohazards will also be investigated.

Course Topics:

1. Introduction to geological hazards and risks as well as some basic geological principles (e.g., plate tectonics, basic rock types, etc.).
2. The hazards, monitoring techniques and mitigation of earthquakes and volcanic events.
3. The impact of landslides and other mass wasting events.
4. The hazards related to geological material such as asbestos, natural radon emissions and radioactivity.
5. The problems of groundwater contamination, over usage, and control.
6. The impacts of climate change on our Province and beyond.

Course Organization:

Two 1.5-hour lectures.

Grading: Participation 10%

Earthquake - What would you do? 15%

Midterm Exam 25%

Geohazards - Earth in Turmoil

Final Exam 50% (exam is comprehensive)

Required Texts: Keller, E.A.; Blodgett, R.H.; Clague, J.J.; Natural Hazards, Canadian Edition, Pearson, 2008. ISBN 0-13-223202-2

Recommended Texts: None.

Materials/Supplies: None.

Prerequisite/Corequisite: None.

Notes: Students with credit for GEOG 312-4 cannot take this course for further credit.

This outline is derived from a course outline repository database that was maintained by SFU Student Services and the University's IT Services Department. The database was retired in 2014 and the data migrated to SFU Archives in 2015.