

EASC 303W - 3 Environmental Geoscience

Section: D100 - 2011 Fall

Instructor: Derek Turner

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Description Topic:

General: REQUIREMENT DESIGNATION: W

Environmental geoscience is an applied branch of Earth Science that examines the relationship between people and their geologic habitat. There will be an emphasis on topics and examples that relate to British Columbia. This course will be writing intensive with an emphasis on communicating your professional recommendations to decision makers.

Course Topics:

1. Introductory concepts: human interaction with the geologic environment
2. Terrain types and terrain maps
3. Natural hazards and their mediation: mass-movements, volcanic, floods, earthquakes
4. Terrain analysis and the forestry industry
5. Groundwater utilization
6. Environmental geochemistry and impacts and consequences of resource extraction
7. Urban geology
8. Global change and its affects

Course Organization:

One 2-hour lecture and one 2-hour laboratory class per week.

Field trips:

1. Forestry related geoscience, terrain types, landslides, Norrish Valley.
2. Urban Geology, North Shore Slopes of Burrard Inlet.

The field sessions will take all day (we will leave campus at 8:30 am (sharp!) and return at 6:30/7:00 PM). Students will require basic fieldgear (boots, raingear, etc.), a lunch and must have a camera. You will also hand in your field notes with your field report.

Grading:

Examinations:

Midterm 15 %

Final 25 %

Field reports 35 %

Labs 20%

Quick writes 5%

Required Text:

Environmental Geology, Eighth Edition, Edward A. Keller, Prentice Hall, ISBN 978-0-013-022466-8

Recommended Text:

None.

Material List:

None.

Prerequisite/Corequisite:

60 Credit hours including six credit hours in Earth Sciences and GEOG 213.

Notes:

Be aware that during the field trip there will be period of strenuous hiking, hiking close to cliffs and crossing roads with busy traffic. Appropriate clothing and footwear should be worn. Further details regarding safety, food, housing and field supplies will be discussed prior to the field trip.

There will be a supplementary fee.