

JAMESTOWN COMMUNITY COLLEGE
State University of New York

Master Course Syllabus

Course Title: Geologic Hazards

Course Abbreviation and Number: GLG 1720

Credit Hours: 1 **Division:** STEM **Course Type:** Lecture

Course Description: This course explores the dangerous and fascinating world of earthquakes and volcanoes. Students will study the geologic settings that produce these phenomena, specific hazards associated with each, and the immediate and long term effects of natural disasters of this magnitude. Risk assessment, human mitigation, and ways to minimize the devastating consequences of earthquakes and volcanoes will be covered.

Eligibility: ENG 1530.

Course Attributes: E,L,N

(C=Career, E=Elective, H=Humanities, L=Liberal Arts & Sciences, N=Mathematics/Sciences, S=Social Sciences; VEDP=Values, Ethics & Diverse Perspectives) 4-letter codes represent SUNY General Education Courses, please see below to determine which SUNY General Education requirement(s) is met.

Student Learning Outcomes:

After the successful completion of this course students will be able to:

1. Define and identify five major tectonic plate boundaries in and around North America, Central America, Asia, and the Pacific.
2. Define, identify, and describe the geology of hot spots.
3. Define, interpret, or discuss terms related to seismic events such as the Richter scale, P- and S-waves, seismic graphs.
4. Describe the hazards related to and means to mitigate the damaging effects of the San Andreas fault and the Vesuvius Volcano.

Additional Student Learning Outcomes that meet SUNY General Education Requirements:

Does this course meet a SUNY General Education requirement(s)? Yes No

Topical Outline:

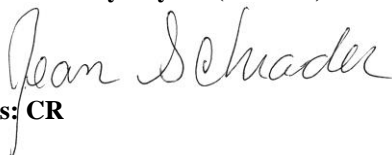
- Overview of the earth's tectonic plates and evidence for plate tectonics. Causes of earthquakes and volcanoes in terms of plate tectonics.
 - Geology of hotspots using the examples of Yellowstone and Hawaii.
 - Interpretation of earthquake and seismic data. Specific hazards related to earthquakes (historic examples).
 - Historic examples of volcanic activity and associated hazards.
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Signatures and Dates:

Discipline Director: Nancy Bryant (director)

Date: 12/16/09

Assistant Dean:



Date: 1/12/2010

Academic Affairs: CR

Date: 1/12/2010

Effective Date: Spring 2010