

CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS
NEW COURSE PROPOSAL

PROGRAM AREA Environmental Science and Resource Management

1. Catalog Description of the Course

GEOL 321. ENVIRONMENTAL GEOLOGY (4)

Three hours of lecture and three hours of laboratory per week.

Interrelationships between human and natural geologic hazards: tsunami, earthquakes, landslides, subsidence, volcanoes. Explores environmental impact of resource extraction and usage, the importance of understanding the geologic processes and landscape in land use planning, and the means of using geology to minimize conflicts in resource management and disaster preparation.

GenEd: B1

2. Mode of Instruction.

	Units	Hours per Unit	Benchmark Enrollment
Lecture	3	1	20
Seminar			
Laboratory	1	3	20
Activity			

3. Justification and Learning Objectives for the Course. (Indicate whether required or elective, and whether it meets University Writing, and/or Language requirements)

Justification: This is a required course in ESRM and contributes to the Liberal Studies options. This course is designed to examine the geological factors in environmental and social issues.

Learning Objectives. Upon completion of course, the student will be able to:

- Interpret the geological forces creating the landscape;
- Associate systems theory as it relates to environmental issues;
- Describe the contributing factors affecting environmental change;
- Describe the complexity of ecological relations from the geological perspective.

4. Is this a General Education Course **YES** **NO**

If Yes, indicate GE category:

A (English Language, Communication, Critical Thinking)	
B (Mathematics & Sciences)	X
C (Fine Arts, Literature, Languages & Cultures)	
D (Social Perspectives)	
E (Human Psychological and Physiological Perspectives)	

5. Course Content in Outline Form.

Introduction;What is environmental geology?
Rocks and Minerals;Plate Tectonics
Earthquakes;Volcanoes
Streams and Flooding;Coastal Zones and Processes
Mass Movements;Geology & Climate
Resources;Water as a Resource
Soil as a Resource;Mineral Resources
Energy Resources--Fossil;Energy Resources—Alternatives
Waste Disposal;Water Pollution
Air Pollution;Environmental Law
Land Use Planning;
Land Use Planning;

6. References. [Provide 3 - 5 references on which this course is based and/or support it.]

Montgomery, Carla W., 2003 *Environmental Geology*. McGraw-Hill

NEWCRSFR 9/30/02