

Course # GEOL 105 Environmental Geology

Credit Hours: 4

Scheduled hours per week

Lecture: 3

Lab: 2

Catalog Course Description: An introduction to the study of the Earth's processes, and interconnections between humans and Earth. The physical, chemical, and biological processes that shape Earth will be studied in conjunction with environmental issues. The study of Earth's subsystems (the lithosphere, biosphere, hydrosphere, and atmosphere) and the human impact on the subsystems. The laboratory work will emphasize, minerals and rocks, interpretation of maps, and geologic processes.

Pre-requisites: None

Co-requisites: GEOL 106L

Course Learning Outcomes (CLO):

- Ability to understand, demonstrate, and analyze human impact on the environment, rock and mineral exploration, human population, volcanoes, earthquakes, mass wasting, groundwater, coastal processes, renewable and nonrenewable resources, air pollution and emissions, and climate change.
- Use critical thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations, and predictions.
- Capability to correctly make observations and/or take measurements and use scientific formulas for problem solving.
- Communicate the results of scientific investigations, analyze data and formulate conclusions.
- Work safely and collaborate with peers to carry out the scientific method.

CLO Assessment Methods:

Direct: Exams, quizzes, presentations, research presentation, lab assignments, and prepared assignments.

Indirect Methods: Course Evaluations

Topics to be studied:

- Rocks and mineral resources
- Population growth and environmental impact
- Running water and groundwater resources
- Pollution in the environment
- Mass wasting; cause and impact

- Fossil fuels; exploration, deposits, resources, environmental impacts
- Renewable resources; development and impact
- Earth resources and environmental issues
- Climate change
- Environmental Health

Relationship of Course to Program Learning Outcomes (PLO) or Institutional Learning Outcomes:

(For Program Courses, indicate outcomes taught in this course that relate to program outcomes) (For Foundational Learning or Reinforcement Learning Courses, indicate the approved Institutional Learning Category, the Institutional Learning Outcomes, and the related course outcomes)

Check if approved as: Foundational Learning Course Reinforcement Learning Course

Special requirements of the course:

N/A

Additional information:

N/A

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