

GEOL 104 Historical Geology Laboratory

Credit Hours: 1

Scheduled hours per week

Lecture: 0

Lab: 2

Other: N/A

Catalog Course Description: The laboratory study of sedimentary rocks, fossils, correlation or rock units, interpretation of geologic maps, and local geology with field trips.

Pre-requisites: N/A

Co-requisites: GEOL 103 Historical Geology

Course Learning Outcomes:

- Ability to demonstrate critical thinking by analyzing data to infer logical conclusion.
- Demonstrate and practice the scientific method of investigation of a problem or idea.
- Ability to collect accurate scientific data by practicing accurate data collecting techniques.
- Practice experimentation and/or observation of nature in order to evaluate scientific questions or scientific problems.
- Ability to analyze data by using graphing and other techniques to infer general trends in data and make inductive inferences.
- Ability to make hypothetical-deductive predictions relative to scientific concepts and understand how to test those predictions.
- Capability to correctly practice the steps involved in solving problems with the scientific formulas.
- Ability to take measurements and do calculations using the basic metric system of measurement.
- Learn and practice methodical study and work habit.
- Ability to understand demonstrate, and analyze Geologic Time.
- Ability to identify rocks and fossils.
- Demonstrate and understanding of Earth's origin, history, composition, and internal and external process.
- Demonstrate an understanding of the relationship of Earth to the Universe as a whole.

Topics to be studied:

- Geologic maps
- Correlation of rock units
- Sedimentary environments
- Taxonomy, morphology, and evolution of fossil organism groups
- Paleoecology
- Paleogeography,
- Paleoclimatology

Relationship of Course to Program or Discipline Learning Outcomes:

Relationship of Course to Science Learning Outcomes:

Students will learn the process and reasoning behind the Scientific Method and be able to conduct experiments that meet the requirements of the model.	X
Students exhibit the basic safety-related rules and regulations of working in the lab.	X
Students be able to recount the basic safety tenants associated with a specific scientific discipline.	X
Students will become proficient at Science Writing.	X
Students will recognize and identify the applications of their specific discipline in the 'real world.'	X
Students will accurately recount important milestones in the history of scientific inquiry in their discipline.	X
5/3/2016	

Relationship of Course to General Education Learning Outcomes:	
Composition and Rhetoric Students illustrate a fundamental understanding of the best practices of communicating in English and meet the writing standards of their college or program-based communication requirements.	X
Science & Technology Students successfully apply systematic methods of analysis to the natural and physical world, understand scientific knowledge as empirical, and refer to data as a basis for conclusions.	X
Mathematics & Quantitative Skills Students effectively use quantitative techniques and the practical application of numerical, symbolic, or spatial concepts.	X
Society, Diversity, & Connections Students demonstrate understanding of and a logical ability to successfully analyze human behavior, societal and political organization, or communication.	X
Human Inquiry & the Past Students interpret historical events or philosophical perspectives by identifying patterns, applying analytical reasoning, employing methods of critical inquiry, or expanding problem-solving skills.	X
The Arts & Creativity Students successfully articulate and apply methods and principles of critical and creative inquiry to the production or analysis of works of art.	X
5/3/2016	

Special requirements of the course:

N/A

Additional information:

GEOL 104 Historical Geology Laboratory is a separate grade from GEOL 103.

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