

Geology

GEOLOGY MINOR

www.eou.edu/geology/

PROGRAM OBJECTIVES

We offer a variety of Geology courses designed

- To provide a basis for understanding Earth's geological phenomena for all who enjoy the out-of-doors.
- To fill the general education science requirements of non-science majors.
- To give students wishing to pursue geology as a career a strong background in the fundamentals of geology which will make it possible for them to successfully pursue undergraduate and advanced geology degree at other institutions.
- To provide the core of the General Science Liberal Studies program experiences and in earth sciences for all science teachers.
- To provide complimentary background for other program area- The Natural Sciences, Physical Anthropology, Geography and Land Use Planning, Forestry and Agriculture, etc.
- To give students wishing to pursue geology as a career a solid foundation of basic geology skills and knowledge.
- To teach students the basic techniques of geology field, laboratory and literature research.
- To give students experience presenting the results of their literature and field research orally and in writing to their peers and other audiences.

LEARNING OUTCOMES

- Students will learn: Identification of rocks, minerals, soils and fossils; use of topographic and geologic maps, air and satellite photos, radar and digital images; making geologic measurements (describing outcrops, measuring strike and dip, taking notes, etc.) in the field, in the laboratory, and in class and individual research projects.
- Students will be able to present the results of their investigation orally, in writing and in poster form.

MEANS OF ASSESSMENT

- Field projects, examinations and research papers.

- Writing and compiling field notes, cross-sections and geologic maps.
- Group and individual poster and oral presentations.

- Writing of reviews, abstracts, research papers and senior theses.

TWO YEAR TRANSFER PROGRAM

The first two years of transfer work in Geology are offered at EOU.

First Year

Mathematics 111, 112, 113
Geology 201, 202, 203
Electives
Chemistry 204, 205, 206

Second Year

Because of the wide variety of transfer programs and student backgrounds, the second year of the program should be developed in consultation with your adviser.

REQUIREMENTS FOR THE MINOR IN GEOLOGY

1. Complete a minimum of 30 graded credits in geology to include GEOL 201, 202, and 203 and a minimum of 15 upper-division (300-400) credits in geology including at least one 400 level course.
2. A grade of "C-" or better in each course counting toward the minor.
3. A minimum of 10 hours counting toward the minor must be completed at Eastern Oregon University.

COURSE DESCRIPTIONS

GEOL 101 - Intro Geol Sci*N/NW Credits: 3.00
Gen Ed-Natural Science
New Gen Ed-Natural World

An examination of the attitudes of scientists and their methodology including historical perspectives and how science influences and is influenced by philosophy and culture. Current controversies in the earth sciences will be discussed and debated.

**GEOL 102 - Environmental Geol*N/NW Credits: 3.00
Gen Ed-Natural Science****New Gen Ed-Natural World**

Development of an understanding of the impact of natural processes on our lives and an appreciation for the importance of sound environmental planning. Volcanism, earth-quakes, landsliding, flooding, groundwater pollution, waste disposal and other environmental problems. Introduction to land-use planning. Prerequisite: GEOL 101 or consent of instructor.

**GEOL 103 - Geological Ocean*N/NW Credits: 3.00
Gen Ed-Natural Science****New Gen Ed-Natural World**

Exploration of the deep sea ridges and the development of plate tectonic theory. Coastal features, the processes that shape them, and man's battle with the natural forces in the coastal zone. Origin and history of the continental margin and the battles over offshore resources. Prerequisite: GEOL 101, 102, or consent of instructor.

**GEOL 104 - Earth Science Lab*N/NW Credits: 1.00
Gen Ed-Natural Science****New Gen Ed-Natural World**

Laboratory activities in selected areas of earth science including rock and mineral identification, earthquakes, volcanism, fossils and other topics. Prerequisite: GEOL 101, 102 and 103, or consent of instructor. Concurrent enrollment is acceptable.

GEOL 110 - Selected Topics Credits: 1.00 to 6.00

Current topics in geology and earth sciences, focusing on aspects of geology, astronomy, oceanography, energy and mineral resources, and other fields of interest.

**GEOL 201 - Physical Geology*N/NW Credits: 5.00
Gen Ed-Natural Science****New Gen Ed-Natural World**

Development of understanding and appreciation of earth features and the agents and processes that form and change them; characteristics of the common rocks and minerals and their economic importance; the main sequence of earth history. Field trips to surrounding areas of geologic interest. Prerequisite: GEOL 201-None. GEOL 202-GEOL 201 or consent of instructor.

GEOL 201L - Phys Geology Lab Credits: .00**GEOL 202 - Physical Geology*N/NW Credits: 5.00
Gen Ed-Natural Science****New Gen Ed-Natural World**

Development of understanding and appreciation of earth features and the agents and processes that form and change them; characteristics of the common rocks and minerals and their economic importance; the main sequence of earth history. Field trips to surrounding areas of geologic interest. Prerequisite: GEOL 201-None. GEOL 202-GEOL 201 or consent of instructor.

GEOL 202L - Phys Geology Lab Credits: .00**GEOL 203 - Historical Geology*N/NW Credits: 5.00
Gen Ed-Natural Science****New Gen Ed-Natural World**

Fossil animals and plants; methods of correlating and interpreting the geologic past. Field trips to nearby fossil locations. Prerequisite: GEOL 201 and 202 or consent of instructor.

GEOL 203L - Historical Geol Lab Credits: .00**GEOL 210 - Selected Topics Credits: 1.00 to 6.00**

Current topics in geology and earth sciences, focusing on aspects of geology, astronomy, oceanography, energy and mineral resources, and other fields of interest.

GEOL 304 - Geol Sci Lab Credits: 1.00

(Writing Intensive) Introduction to the concepts and techniques of teaching geology and earth science at the elementary and secondary school levels. Prerequisite: GEOL 101, 102 and consent of instructor.

GEOL 310 - Selected Topics Credits: 1.00 to 6.00

Current topics in geology and earth sciences, focusing on aspects of geology, astronomy, oceanography, energy and mineral resources, and other fields of interest. Prerequisite: GEOL 201, 202, 203 or consent of instructor.

GEOL 310L - Geology 310L Credits: .00**GEOL 320 - Earth Materials Credits: 5.00**

Origin, occurrence, identification and classification of rocks and minerals. Prerequisite: GEOL 201, 202, 203 or consent of instructor.

GEOL 320L - Earth Mat Lab Credits: .00**GEOL 401 - Capstone Credits: 1.00 to 15.00**

(Writing Intensive) Student research supervised by one of the geology faculty. Includes preparation of a research proposal and timetable; significant fields, laboratory and library study; and a public presentation of research results and/or submission of a written report in a format suitable for the Eastern Oregon University science journal. Prerequisite: GEOL 201, 202, 203; at least one upper division geology course; and junior class standing.

GEOL 405 - Selected Topics Credits: 1.00 to 15.00

Individual student or small group discussion with a faculty member about a topic of interest. Heavy reading assignments are typical. Prerequisite: GEOL 201, 202, 203; and junior class standing.

GEOL 407 - Selected Topics Credits: 1.00 to 15.00

Student lectures and written paper on aspects of a broad topic of interest. Prerequisite: GEOL 201, 202, 203; and junior class standing.

GEOL 410 - Selected Topics Credits: 1.00 to 6.00 (Writing Intensive) Topics of current interest to students and faculty; topics may include structural geology, petrology, geomorphology, paleontology, field methods and other fields of interest. Prerequisite: GEOL 201, 202, 203 or consent of instructor.
Restrictions: May not be enrolled in one of the following Class(es): Freshman, Sophomore

GEOL 420 - Field Invest:Topical Credits: 1.00 to 6.00 Field expeditions to unique geological, biological and historical areas of North America. Students will undertake studies of the areas selected for exploration and keep detailed field journals. Prerequisite: GEOL 201, 202, 203 or consent of instructor.
Restrictions: May not be enrolled in one of the following Class(es): Freshman, Sophomore

GEOL 453 - Geology Pacific NW Credits: 5.00 Introduction to the geological history of the region. Emphasis on selected physiographic provinces including their structure, lithology, mineral resources, and environmental concerns as related to geology. Field trips to representative areas. Prerequisite: GEOL 201, 202, 203 or consent of instructor.
Restrictions: May not be enrolled in one of the following Class(es): Freshman, Sophomore

GEOL 510 - Selected Topics Credits: 1.00 to 6.00 Topics of current interest to students and faculty; topics may include structural geology, petrology, geomorphology, paleontology, field methods and other fields of interest. Prerequisite: GEOL 201, 202, 203 or consent of instructor.
Restrictions: May not be enrolled in one of the following Level(s): Denied Adm Graduate, Graduate, Non-Admitted Graduate, Post-Baccalaureate, Post-Baccalaureate Non-Grad. May not be enrolled in one of the following Class(es): Freshman, Junior, Non-Admitted Undergraduate, Sophomore, Senior

Eastern Oregon University

History

PROGRAM OBJECTIVES

The History Program introduces the student to the world that was and is and the student's relationship to that world. It stresses the continuity of culture by providing a historical background for the study of other disciplines and for responsible citizenship. It also helps prepare students for careers in teaching, public service, consulting, research, museums, archives, and libraries, and provides a liberal education as a basis for entering a variety of careers such as public administration, business, and law.

LEARNING OUTCOMES

- Provide a solid foundation in the core academic discipline of History.
- Achieve a thorough understanding of the methodologies and professional ethics practiced by historians.
- Develop an appreciation for the diversity of historical experiences around the globe and a basic competence in several of these histories:
- Acquire a basic understanding of the core concepts, events, and historio- graphical trends in selected areas of American history.

- Acquire a basic understanding of the core concepts, events, and historio- graphical trends in selected areas of European history.

- Acquire a basic understanding of the core concepts, events, and historio- graphical trends in selected areas of Ancient or Middle Eastern history.

- Develop skills in researching, writing and presenting historical work.

MEANS OF ASSESSMENT

History Majors are evaluated in a variety of ways. They complete with a grade of C- or better required and elective courses that reinforce their knowledge of the diversity of the human historical experience. By satisfactorily completing History 420: Historiography and then writing a substantial undergraduate thesis that they must present to their peers, they master the fundamental methodologies that historians must use while enhancing their skills in research, writing, computer use, and public presentation. The thesis also caps course work in which students have mastered the ability to understand and compare historical interpretations, find and use both primary and secondary sources in libraries and on the internet, and communicate their findings to others. The writing-intensive course work also prepares them to take and pass Eastern's