

Indiana State University

ENVI 170 Section 001

Earth Science

Catalog Course Description

Studies of the origin and classification of rocks and minerals, the interior of the Earth, volcanism, diastrophism, basic stratigraphic principles, topographic, and geologic maps.

Faculty Information

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Department: Earth And Environmental Systems

Office Hours: T/Th 11:00-noon

Course Learning Objectives

This course is designed to provide science and non-science majors with an introduction to the principles of physical geology. Physical geology is the study of the Earth, with emphasis on the composition and structure of Earth materials and the processes that shape the Earth. By the end of the course you will be able to: (1) implement terminology used in the language of geology; (2) organize the eras and periods of the geologic time scale and relate their order and duration; (3) assess important features on geological and topographical maps and their relative positions; (4) differentiate common rock and mineral types found on the Earth's crust; (5) apply common geological principles to address scientific questions; (6) arrange major geological events in their appropriate chronological order through Earth's history; (7) identify geological features and the modern surface processes that have operated to form them; (8) compare the primary agents that reshape the Earth's surface and how we can recognize and distinguish among them in the rock record; (9) assess geological hazards and the importance of their detection and mitigation; (10) examine the distribution of water on Earth, and how that impacts our access to freshwater as a resource; (11) explore the formation, collection, and use of critical natural geological deposits; (12) explore how the Earth's climate has varied in the past and the causes of natural variability.

Required Textbooks and Materials

Essentials of Geology - 7th Edition (prior editions acceptable) by Stephen Marshak (W.W. Norton; ISBN: 8220127510615). A laptop and internet connection is also required.

Graded Elements of the Course

In-class exercises, quizzes, exams, group project