

General Education Course Objectives and Learning Outcomes

Course Name: Historical Geology

Course Number: GEOL 2024

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Department: Physical Sciences

COMMON COURSE OBJECTIVES AND STUDENT LEARNING OUTCOMES THAT ARE OR WILL BE LISTED ON THE SYLLABUS OF EVERY SECTION OF THIS COURSE:

<i>Course objectives:</i>	<p>GEOL 2024 is a survey of the earth's features and processes which include minerals, rocks, plate tectonics, geologic time, earthquakes, volcanoes, groundwater, development of landscapes, erosion, and climate change. Laboratory exercises will serve to support/enhance lecture topics.</p>
<i>Student learning outcomes:</i>	<p>Upon satisfactory completion of the course, students will be able to:</p> <ul style="list-style-type: none"> - Utilize fundamental knowledge of chemistry and physics to understand the materials that comprise Earth - Understand that Earth system by studying these processes and their relationships through deep time - Understand the setting of Arkansas through Earth's history - Demonstrate knowledge of challenging concepts by construction and utilization of models and charts

ADHE ACTS INFORMATION FOR THIS COURSE (IF APPROPRIATE)

<i>ACTS Course number:</i>	<p>GEOL 1134</p>
<i>Copy the ACTS course objectives and learning outcomes:</i>	<p>General Description: Geological history of the earth including methods of reconstruction of past environments. The evolution of life recorded by the rock record.</p> <p>Expected Student Learning Outcomes: The student will be able to explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following topics:</p> <ul style="list-style-type: none"> - Theories of the origin of the earth - Evolutionary change of the earth - Fossil record and evolution of life - Sedimentary Rocks - Stratigraphy - Orogenies - Plate tectonics - Geologic time - Darwin's theory of natural selection

WHICH ATU GENERAL EDUCATION GOALS DOES THIS COURSE FULFILL? (NO MORE THAN TWO)

Communicate effectively

Written communication

Oral communication

X Think critically

Develop ethical perspectives

Diversity

Empathy

Leadership

X Apply scientific and quantitative reasoning

X Scientific reasoning

X Quantitative reasoning

Apply the value of the arts and humanities

Practice civic engagement

**DESCRIPTION OF HOW THIS COURSE MEETS THE GENERAL EDUCATION GOALS CHOSEN ABOVE
(TO BE INCLUDED ON THE SYLLABUS OF EVERY SECTION OF THIS COURSE)**

This course is designed to support two of the six goals of Arkansas Tech's general education requirements. These goals are to "*think critically*", and "*apply scientific and quantitative reasoning*". Classroom and laboratory lectures, exercises, and exams are specifically designed to assist the student in meeting these goals.