GEOL 1- GEOLOGY 1: PHYSICAL GEOLOGY

SECTION #50087

Class:
Meetings will take place Mondays and Wednesdays, 1:00-3:50 PM in classroom PHY-76.

Instructor:
Isaiah Ronquillo
PHY-76
Cell Phone:
(951) 200-0273
e-mail:
isaiah.ronquillo@reedleycollege.edu
Office Hours:
By appointment only.

Welcome to GEOL 1! This course provides an opportunity to learn about Earth, its surficial and subsurface processes, the minerals and rocks that comprise it, and much more. These processes have directly impacted the central valley and the world geologically. This is a great opportunity to better understand and appreciate Earth!

Prerequisites: None

Catalog Description: This is an introduction to processes shaping the earth and its formations. This includes, plate tectonics, volcanism, igneous processes, sedimentary processes, metamorphism of pre-existing rock, and earthquakes. Other topics include, map reading, satellite imaging for remote sensing, geologic time, oceanography, flooding and groundwater processes, and surficial geologic processes. Rock and mineral identification is taught in lab.

Textbook: Physical Geology: Earth Revealed, 7th Edition, Diane H. Carlson, Charles C. Plummer, The Late David McGeary
YOU DO NOT NEED TO PURCHASE THIS TEXTBOOK. IT IS AVAILABLE IN THE LIBRARY FOR REFERENCE.

Grading: Grades will be based on percentage of possible points from in-class lab, assignments, and tests.

In-Class Labs: There will be labs based on the material learned during lectures. Geology is different in that most is learned from physical samples and experiments. This is a significant portion of the final grade. These will typically take place during Wednesday's class and will be due at the end of the period. There will be one Test based solely on material covered in lab (Test #2).

Tests:
There will be three tests covering lecture material, previous assignments, and lab material.

Grading Scale:
Grades are calculated on the percentage of total points earned from weighted labs, tests, and assignments.

Tests: 35%
Labs: 40%
Participation/Attendance: 10%
Assignments: 15%

90-100%	A
80-89.9%	B
70-79.9%	C
60-69.9%	D
<60%	F

Accommodations for students with Disabilities:
Any verified need for academic accommodations or materials in alternate media (i.e., large print, electronic text, Braille) per the Americans with Disabilities Act (ADA) or section 504 of the Rehabilitation Act is followed. Please contact me as soon as possible for proper accommodations.

Add Date: Friday, January 5th Last day to add a course
Drop Date: Friday, March 8th Last day to drop this course
Holidays: Monday, January 15th Martin Luther King, Jr Day
Monday, February 19th Washington Day
Monday March 25th- Friday March 29th Spring Break
Final: Monday, May 13th, 1:00-2:50 PM

Student Learning Outcomes:

1. Identify and differentiate common minerals and rocks.
2. Understand and discuss the theory of plate tectonics and hypothesize how its responsible for shaping the surface of the earth.
3. Use topographic maps, aerial photographs, and earth satellite images in identifying faults, and other surficial geologic processes and hazards.
4. Compare and contrast the formation of different rock types (igneous, sedimentary, and metamorphic) using physical samples and that as described using the rock cycle.
5. Understand geologic time and its impact in shaping the surface of the earth.

Objectives:

1. Understand the theory of plate tectonics and its role in shaping the surface of the earth.
2. Discuss where, how, and why different rocks form from plate tectonic interactions.
3. Understand how rocks deform and metamorphose.
4. Identify rocks and minerals and their chemical composition
5. Understand how, where, and why earthquakes occur.
6. Describe and locate surficial geologic processes and hazards.
7. Discuss geologic time and its implications.

Schedule (subject to change):

Week 1	Introduction to geology and topographic maps
Week 2	Aerial photography and satellite imaging
Week 3	Climate and Glaciation
Week 4	Plate tectonics
Week 5	Volcanism
Week 6	Earthquakes and faults
Week 7	**Test #1** (Weeks 1-6)
Week 8	Introduction to minerals and chemical composition
Week 9	Igneous rocks and processes
Week 10	Sedimentary rocks and processes
Week 11	Metamorphic rocks and processes
Week 12	**Test #2** mineral and rock ID (Weeks 8-11)
Week 13	Geologic time
Week 14	Fossils
Week 15	Surficial geologic processes
Week 16	Hydrology
Week 17	Eolian Environments and Rivers
Week 18	**Test #3** (Weeks 13-17)