

Introduction to Physical Geology - Syllabus

University of Texas at El Paso
UGLC 220

Spring 2020 • GEOL 1313
Mon/Wed 1:30-2:50 PM

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Course Goals and Objectives

This course will expose students to the amazing world of geology and show the impact of Earth processes on our everyday life. A student should leave this course with a basic understanding of the concepts and vocabulary of the geosciences. You will also be exposed to how scientists approach a scientific problem (observe, question, and analyze), distinguish facts from interpretations, and assess sources of information. Ultimately, the goal is for the students to use the knowledge acquired on Earth processes to become more informed citizens.

If you have a disability or if you are experiencing learning disabilities and need classroom accommodations, please contact the Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Rm 106. For additional information, please visit www.sa.utep.edu/cass.

Textbook / Blackboard

‘Exploring Geology’ By Reynolds, Johnson, Morin and Carter (ISBN: 9781260702019)
Please, rent (or buy) the print version and bring book to class.
There is no need to buy access to McGraw-Hill Connect/LearnSmart.
Blackboard Lectures will be uploaded to Blackboard after each class. Assignment instructions and class messages will also be announced in Blackboard.

Grading

Grades will be calculated as follows: i) 6 assignments at 10 points each, ii) one mid-term exam at 15 points each, and iii) a final exam at 20 points. There will be no opportunity to improve test scores. Attendance and Score values from iClicker Reef will be proxies for attendance and participation, respectively, and will count as follows: Score $\geq 60\%$, irrespective of attendance = 5 points, Score $\geq 70\%$, Attendance $\geq 85\%$ = 5 points extra credit. Total, including extra credit = 105 points. Letter grade: A = 90-100, B=80 – 89.9, C = 70-79.9, D = 60-69.9, F = less than 60

iClicker Cloud / iClicker Reef

We will use iClicker Cloud, a Classroom Response System that allows instructors to track attendance and ask questions, gathering and displaying student responses in real-time. This system is free. You need to set up an **iClicker Reef** account and download the App to your mobile phone. Use your ‘utep.edu’ email.

Learning outcomes. Among other outcomes, at the end of the course students will:

- Understand the interrelationship between Earth processes and human development, including the location of the mineral resources that have enabled modern society
- Recognize various tectonic settings on Earth and predict the nature of seismic and volcanic activity at the different tectonic settings
- Understand plate tectonics and the concept of a dynamic planet
- Identify basic rocks and minerals and relate them to their environment of formation
- Understand what drives geologic processes; understand the rock cycle, the water cycle, and the life cycle (evolution)
- Appreciate the immense variety of temporal and spatial scales involved
- Understand how basic physics, chemistry, biology and mathematic principles are applied to understand Earth and solve geologic problems

Schedule

Week	Date	Topic	Chapter
1	Jan. 22	Intro. to Geology	Ch. 1-2
2	Jan. 27, 29	Intro. to Geology (cont.), Plate Tectonics	Ch. 2, 3
3	Feb. 3, 5	Earth Materials (Rocks and Minerals)	Ch. 4
4	Feb. 10, 12	Igneous Environments & Volcanoes	Ch. 5, 6
5	Feb. 17, 19	Sedimentary Rocks	Ch. 7
6	Feb. 24 Feb. 26	Midterm Exam I Deformation and Metamorphism	Ch. 8
7	Mar. 2, 4 <i>Mar. 5-6</i>	Geologic Time <i>Geology Colloquium</i>	Ch. 9
8	Mar. 9, 11	Continental Margins	Ch. 10
9	Mar. 16-20	Spring Break	
10	Mar. 23, 25	Earthquakes	Ch. 12
11	Mar. 30, Apr.1	Assignment 3: Graphic Report (Earthquakes)	
12	Apr. 6, 8	Assignment 4: Scientific Investigations (at a time of COVID-19)	(See Ch.2)
13	Apr. 13, 15	Climate and Geology; Glaciers, Coasts and Changing Sea Levels	Ch. 13, 14
14	Apr. 20, 22	Assignment 5: Climate Change	
15	Apr. 27, 29	Natural Resources: Water, Energy, Minerals	Ch. 17, 18
16	May 4, 6	Assignment 6: Mineral Resources Review for Exam	
17	May 13	Final Exam 4:00-6:45 (Open book)	

