

Introduction to Physical Geology - Syllabus

University of Texas at El Paso
Online Lectures Synchronous

Spring 2021 • 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.

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
- Understand plate tectonics and the concept of a dynamic planet
- Recognize various tectonic settings on Earth and predict the nature of seismic and volcanic activity at the different tectonic settings
- Identify basic rocks and minerals and relate them to their environment of formation
- Understand the rock cycle, the water cycle, and the life cycle (evolution)
- Understand the difference between weather and climate, the basic controls on climate and climate change, and the science behind human-induced global warming
- Learn how geologic energy resources are formed (hydrocarbons, uranium, geothermal) and how water resources are studied and used
- Appreciate the immense variety of temporal and spatial scales involved

Textbook / Zoom / Blackboard

‘Exploring Geology’ By Reynolds, Johnson, Morin and Carter (ISBN: 9781260702019)
Strongly recommended. There is no need to purchase access to McGraw Hill Connect/LearnSmart.

Zoom / Blackboard Lectures in Zoom will be uploaded to Blackboard after each class. Assignments and class messages will be announced in Blackboard.

Grading

Grades will be calculated through a combination of (details to be announced):

- Attendance to online lectures
- Three assignments
- Three midterm exams and one final exam (see schedule)

Letter grade: A = 90-100, B=80 – 89.9, C = 70-79.9, D = 60-69.9, F = less than 60

CASS / Student Concerns

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.

If you are struggling with this class or experiencing difficulties at the university, please reach out to your instructor or teaching assistant. If they are unable to help you, then please contact the Dean of Students Office at DOS@utep.edu or phone (915) 747-5648

Academic Misconduct

Academic dishonesty will be not tolerated in this class (please refer to the student conduct code handbook for details regarding university policy and definitions). Dishonesty includes, but is not limited to, plagiarism on term papers, unauthorized notes brought into an exam; copying answers from another student or letting another student copy your answers. The penalty for the first offense will be a grade of zero points on the exam or assignment. Penalty for the second offense will be an F for the course.

Helpful Hints

- Attend the lectures!
- Review material regularly - multiple short study sessions over a period of weeks are more effective than a single "cram" the night before an exam.
- Form a study group. Each member should study material on their own before meeting with the group for discussion and comparison.
- Ask questions if you don't know or are confused.
- Combine class notes, textbook, and web materials when studying. Each provides a different perspective.

Schedule

Week	Date	Topic	Chapter
1	Jan. 20	Intro. to Geology	Ch. 1, 2
2	Jan. 25, 27	Plate Tectonics	Ch. 3
3	Feb. 1, 3	Earth Materials (Rocks and Minerals)	Ch. 4
4	Feb. 8, 10	Magmas and Volcanoes	Ch. 5, 6
5	Feb. 15, 17	Sedimentary Rocks Mid Term Exam I	Ch. 7
6	Feb. 22, 24	Deformation and Metamorphism	Ch. 8
7	Mar. 1, 3	Geologic Time	Ch. 9
8	Mar. 8, 10	The Seafloor and Continental Margins	Ch. 10
9	Mar. 15-17	Spring Break	
10	Mar. 22, 24	Earthquakes and Hazards Mid Term Exam II	Ch. 12
11	Mar. 29, 31	Climate and Geology	Ch. 13
12	Apr. 5, 7	Climate Change	Ch. 14
13	Apr. 12, 13	Water resources	Ch. 17
14	Apr. 19, 21	Energy Resources	Ch. 18-1
15	Apr. 26, 28	Mineral Resources Mid Term Exam III	Ch. 18-2
16	May 3, 5	Review	
17	May 12	Comprehensive Final Exam	