

University of Texas at El Paso (UTEP)



Earth, Environmental, and Resource Sciences
Spring 2023
MW 4:30 pm - 5:20 pm -
UGLC room 346

GEOL 1211 Principles of Earth Science – CRN 22553

Instructor: Dr. Musa Hussein

Office: Geology Building 306B

Office hour: Via MS Team. Only by an appointment.

Phone: (915) 747-5424

Email: mjhussain@utep.edu (respond time 24-48 hours) or
via class messages on Blackboard (respond time 24-48 hours)

Course Description

Study of the earth as a planet. A survey of physical process operating in the atmosphere, lithosphere, and biosphere. Includes introduction to metrology, physical geology, soil, and vegetation. This course is divided into four blocks. Block one will focus on plate tectonics, and earthquakes. In block two students will learn about minerals, igneous rocks and volcanic hazards. Metamorphic rocks and deformation are significant parts of block three together with an introduction to the atmosphere. The course concluded by focusing on the climate change, global warming and the desert regions.

Learning Outcome

At the end of the course students should be able to:

- Understand plate tectonics – how it works, what it explains, what it does not explain
- Understand the interrelationships between Earth processes and products/materials
- Recognize various tectonic settings on Earth
- Demonstrate an understanding of plate tectonics and the concept of a dynamic planet
- Understand what drives geologic processes
- Identify minerals by their physical properties, identify rocks by physical properties, composition, texture, and formation and relate them to their environment of formation
- Appreciate the variety of temporal and spatial scales of cycles
- Apply physics, chemistry, biology and mathematics to solve geologic problems
- Draw connections between geology, climate, climate change, and human activities events.

Text: Earth Science, Tarbuck, Lutgens, and Tasa. Fifteenth Edition, Pearson.

Attendance:

It is a key to success in this class. Students who begin the course and then stop participating will not be dropped. It is the responsibility of each individual student to drop this course if they stop participating.

Grading:

- 1. Exams (Four exams 30 points each) 50% of the over all grade .**The questions will relate to the textbook. Exam review will be posted before each exam.
NO MAKE-UP OR RE-OPEN OF EXAMS ARE GIVEN UNDER ANY CIRCUMSTANCES.
- 2. Assignment (12 assignments 10 point each) 40% of the over all grade**
Every week you will complete one reading assignment. I expect that you will provide full detailed answer for each question, short brief answers are not preferred and will not get the full grade, Beside the correct answer I will be looking for the way you express your answers. Late assignment will lose some points, assignment that is two weeks late will not be grade and will earn 0 points.
- 3. Six short (T, F) quizzes (5 points each)10% of the over all grade:**
Only six quizzes. The quizzes serve to reinforce material. I assign them based on how you are doing with the material.

Grading scale:

90-100=A

80-89.9=B

70-79.9=C

60-69.9=D

less than 60 =F

Incomplete Grade Policy

Incomplete grades may be requested only in exceptional circumstances after you have completed at least half of the course requirements. Talk to me immediately if you believe an incomplete is warranted. If granted, we will establish a contract of work to be completed with deadlines.

Students with Disabilities

If you think you may have a disability or if you are experiencing learning difficulties, please contact The Center for Accommodations and Support Services (CASS) you contact them Monday through Friday 8:00a.m.-5:00p.m. Phone:(915) 747-5148 Union Building East Room 106 cass@utep.edu. They will provide any necessary accommodations. You should also meet with me in order to facilitate your needs. You are expected to provide documentation of your disability in order to make special arrangements in this class.

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. When someone in an audience is talking, or even whispering, it can be very distracting to those nearby. Since this type of behavior is quite rude and impedes the progress of other students, it will not be tolerated and anyone doing so will be asked to leave the classroom.

Helpful Hints:

- 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.
- Write out definitions and answers to essay questions; use a computer, the board in an empty classroom, or something else-don't just passively read your notes!
- Ask questions
- Combine class notes, textbook, web materials, and old exams when studying – each provides a different perspective.
- Do the homework assignments. They will help your grade.
- Read your text in SMALL doses; don't plan on one massive reading session the night before the exam.
- Be sure to look at the pictures and diagrams in the text.

Technology Requirements

Course content is delivered via the Internet through the Blackboard learning management system. Ensure your UTEP e-mail account is working and that you have access to the Web and a stable web browser. Google Chrome and Mozilla Firefox are the best browsers for Blackboard; other browsers may cause complications. When having technical difficulties, update your browser, clear your cache, or try switching to another browser.

You will need to have access to a computer/laptop, scanner, a webcam, and a microphone. You will need to download or update the following software: Microsoft Office, Adobe Acrobat Reader, Windows Media Player, QuickTime, and Java. Check that your computer hardware and software are up-to-date and able to access all parts of the course.

If you do not have a word-processing software, you can download Word and other Microsoft Office programs (including Excel, PowerPoint, Outlook and more) for free via UTEP's Microsoft Office Portal. Click the following link for more information about [Microsoft Office 365](#) and follow the instructions.

IMPORTANT: If you encounter technical difficulties beyond your scope of troubleshooting, please contact the UTEP [Help Desk](#) as they are trained specifically in assisting with technological needs of students. Please do not contact me for this type of assistance. The Help Desk is much better equipped than I am to assist you!

COVID-19 Accommodations

Students are not permitted on campus when they have a positive COVID-19 test, exposure or symptoms. If you are not permitted on campus, you should contact me as soon as possible so we can arrange necessary and appropriate accommodations.

(classes with on-campus meetings) Students who are considered high risk according to CDC guidelines and/or those who live with individuals who are considered high risk may contact [Center for Accommodations and Support Services](#) (CASS) to discuss temporary accommodations for on-campus courses and activities.

COVID-19 PRECAUTIONS

You must STAY AT HOME and REPORT if you (1) have been diagnosed with COVID-19, (2) are experiencing COVID-19 symptoms, or (3) have had recent contact with a person who has received a positive coronavirus test. Reports should be made at [screening.utep.edu](#). If you know of anyone who should report any of these three criteria, you should encourage them to report. If the individual cannot report, you can report on their behalf by sending an email to COVIDaction@utep.edu.

For each day that you attend campus—for any reason—you must complete the questions on the UTEP screening website ([screening.utep.edu](#)) prior to arriving on campus. The website will verify if you are permitted to come to campus. Under no circumstances should anyone come to class when feeling ill or exhibiting any of the known COVID-19 symptoms. If you are feeling unwell, please let me know as soon as possible, and alternative instruction will be provided. Students are advised to minimize the number of encounters with others to avoid infection.

Wear face coverings when in common areas of campus or when others are present. You must wear a face covering over your nose and mouth at all times in this class. If you choose not to wear a face covering, you may not enter the classroom. If you remove your face covering, you will be asked to put it on or leave the classroom. Students who refuse to wear a face covering and follow preventive COVID-19 guidelines will be dismissed from the class and will be subject to disciplinary action according to Section 1.2.3 Health and Safety and Section 1.2.2.5 Disruptions in the UTEP Handbook of Operating Procedures.

(classes with on-campus meetings) Please note that if COVID-19 conditions deteriorate in the City of El Paso, all course and lab activities may be transitioned to remote delivery.

COURSE OUTLINE: this schedule is subject to change.

Topic	Chapter number
Introduction to Earth Science	1
Plate Tectonics: A scientific revolution Unfolds	4
Earthquakes and Earth Interior	5
Exam 1 (TBA)	
Matter and Minerals	2
Rocks: Materials of Solid Earth (Igneous Rocks)	3
Volcanoes and other igneous activity	6
Exam 2 (TBA)	
Rocks: Materials of Solid Earth (Meta Rocks)	3
Crustal Deformation and Mountain Building	7
The Atmosphere: Composition, Structure and Temperature	16
Exam 3 (TBA)	
Weather Pattern and Severe Storms	19
World Climate and Global Climate Change	20
Glacial Desert and Wind	10
Exam 4 (TBA)	

Important Academic Calendar Dates:

- Classes begin Jan. 17
- Census day Feb. 01
- Spring break March 13 - 17
- Course drop March 30
- Dead Day May 06
- Final Exams May 8 - 12