Course Description

Physical geology is the science that study earth materials, structures, and events. This course is divided into four blocks. Block one will focus on plate tectonics, minerals as a building unit of rocks, and igneous rocks as the major rock type. Block two will take students through the other types of rocks (sedimentary and metamorphic), and crustal deformation. Age determination techniques, and Earthquakes are significant parts of block three together with the role of running water in earth surface creation. The course concluded by focusing on the role of ground water and wind in shaping the earth surface, climate change and mineral resources are the last chapters in this class.

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
• Predict the nature of seismic and volcanic activity at the various tectonic settings
• 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
• Understand the rock cycle, the water cycle, the life cycle (evolution), and astronomical cycles and their interactions
• Appreciate the variety of temporal and spatial scales of cycles
• Apply physics, chemistry, biology and mathematics to solve geologic problems
• Draw connections between geology and human events


Attendance:
This is a 100% online class. The class is asynchronous which means you can do the assignments, exams, and quizzes, on your best convenient time as long as you submit within the time limit, I give you Attendance on the course is determined by completing the class assignments, quizzes and exams of the course. Your participation in the course is important not only for your learning and success but also to creating a community of learners.

Grading:

1. Four exams (100 points each): 60% of your overall grade.
   NO MAKE-UP EXAMS ARE GIVEN UNDER ANY CIRCUMSTANCES. The questions will relate to the textbook. Please don’t miss the exam, REOPEN IS NOT AN OPTION.

2. Reading assignments (10 points each): 30% of your overall grade.
   Every week you will complete two reading assignments. I except 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 assignments will lose some points, assignments that is one week late will not be grade and will earn 0 points.

3. Quizzes (5 points each): 10% of your overall grade.
   Every week you will complete two short quizzes. The quizzes serve to reinforce material. I assign them based on how you’re doing with the material. If you miss more than two, you might lose up to a letter grade.

Your final lecture grade is based on the total of exams and quizzes

   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) Monday through Friday 8:00 a.m. - 5:00 p.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.

*Your continued enrollment in this course implies that you have read and understand this syllabus, and that you agree to abide by the conditions herein.*

**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 online. Each member should study material on his own before meeting with the group for discussion and comparison.
- Write out definitions and answers to essay questions; use a computer or something else - don't just passively read your notes!
- Ask questions when you have any
- Combine class notes, textbook, web materials, and old exams when studying – each provides a different perspective.
- Pay attention to the news and current events to see how they related to Geology.
- 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!
### COURSE OUTLINE: this schedule is subject to change.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Chapter number</th>
<th>Due Date</th>
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<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
<td>08/31/2023 at 11:59 pm</td>
</tr>
<tr>
<td>Plate Tectonics</td>
<td>3</td>
<td>08/31/2023 at 11:59 pm</td>
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<tr>
<td>Earth Material (Minerals)</td>
<td>4</td>
<td>09/07/2023 at 11:59 pm</td>
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<tr>
<td>Igneous Environments</td>
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**Exam 1 (Sep 08/ 2023)**

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<tbody>
<tr>
<td>Volcanoes and Volcanic Hazards</td>
<td>6</td>
<td>09/14/2023 at 11:59 pm</td>
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<tr>
<td>Sedimentary Environments and Rocks</td>
<td>7</td>
<td>09/14/2023 at 11:59 pm</td>
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<tr>
<td>Metamorphic Rocks</td>
<td>8</td>
<td>09/21/2023 at 11:59 pm</td>
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<tr>
<td>Deformation</td>
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**Exam 2 (Sep 22/ 2023)**

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<td>9</td>
<td>09/28/2023 at 11:59 pm</td>
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<tr>
<td>Earthquakes and Earth Interior</td>
<td>12</td>
<td>09/28/2023 at 11:59 pm</td>
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<tr>
<td>Streams and Flooding</td>
<td>16</td>
<td>10/05/2023 at 11:59 pm</td>
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<td>Water Resources (Groundwater)</td>
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**Exam 3 (Oct. 06 / 2023)**

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<td>Climate Weather and influence on Geology</td>
<td>13</td>
<td>10/12/2023 at 11:59 pm</td>
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<tr>
<td>Energy and Mineral Resources</td>
<td>18</td>
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**Exam 4 (Oct. 13 / 2023)**

### Important Dates:

- Classes begin: August 28
- Census day: September 05
- Course drop with "W": October 06
- Final Exam: October 16