Course Goals and Objectives:

This course will expose engineering students to the wonderful world of the geological sciences and will demonstrate the impact of geology on your everyday life plus the importance of geology for engineering applications. Also, you will also be exposed to how geological processes created the landscape that is El Paso. A student should leave this course with a basic understanding of the concepts and vocabulary of the geosciences. Scientists need a common language through which to communicate ideas; thus, vocabulary is a very important component of this course. You will also be exposed to how scientists approach a scientific problem: observe, question, and analyze. The lectures, quizzes, assignments, tests, and final project will all work toward these goals.

Goals for Knowledge – at the end of this course you should:

- be able to converse with a geologist/geophysicist
- be able to read geologic/geophysical reports
- know basic rock and soil types and the properties of these rocks/soils that an engineer may be concerned with
- understand surface geologic processes and how they affect engineering studies
- understand internal geologic processes (e.g., faults, earthquakes, volcanoes) and how they affect engineering studies
- know how geophysics is used in engineering site investigation

Goals for Skills – at the end of this class you should:

- know how to read topographic and geologic maps
- locate yourself on a map
• be able to construct topographic and geologic cross sections
• be able to predict properties of a rock by how it appears in hand sample/outrcrop
• conduct simple geophysical surveys
• communicate geology to colleagues and the general public (throughout the course through written assignments)

How will we determine if you have reached these goals?

• in-class quizzes (11 given throughout the semester-see course outline)
• four in-class exams
• Wednesday lecture activities (11 total)
• laboratory activities (see laboratory syllabus for specific details)
• final project

Textbooks and Online Material:
No text is required for the lecture part of this course. Course materials (e.g., copies of lecture power points, links to videos, study guides, handouts) will be available at the Blackboard lecture site and lab assignments will be available at the Blackboard laboratory site. However, this also means you need to take good notes based on the lectures and read the material posted on Blackboard!

Quizzes
Most Tuesday mornings (8 AM) a short quiz over lecture material must be submitted to Blackboard by Wednesday at 5 PM (see course outline for details). No late quizzes accepted unless arrangements are made prior to the Weds. 12 PM deadline.

Assignments
Most Thursday mornings a problem-solving assignment will be available on Blackboard at 12 PM. I will go over the assignment on Wednesdays in class to assist you with these assignments. The assignments are due by 9 AM on Saturday for full credit.

Exams
Exams will be open note and open book, and you be given 1 hour to complete. The exam will be available for 72 hours, but once you start it, you must complete it.
Labs:

If you miss handing in more than two lab assignments and do not contact me or your teaching assistant within one week of the day the lab was posted, you may be withdrawn from the course, with a grade of either W or F. It is up to the teaching assistants to decide if they will grade labs that are turned in more than 1 week late. Teaching assistants may also deduct points for late labs.

LABORATORIES WILL START THE SECOND WEEK OF CLASS! YOU MUST BE ENROLLED IN A LABORATORY SECTION AS WELL AS LECTURE.

Project:

There will be a final project in the course that will be worth 25% of your lab grade (about 10% of your course grade). The project will involve analyzing data, constructing figures, and making power point and poster presentations - all things you will be expected to do as engineers. The project will demonstrate how geology is used by engineers to solve a practical problem.

Grading:

Grades will be calculated based on exams, quizzes, assignments, and laboratories. The grades are not curved. They are based on your ability to learn the vocabulary and concepts of physical geology.

In-class exams [total of 4] 35%
Quizzes [best 10 out of 11] 15%
Assignments [total of 11] 15%
Laboratories, including project 35%

90-100% = A  80-89% = B  70-79% = C  60-69% = D  below 60% = F

Other important dates: last day to drop class with “W” is Nov 3, 2023.

Diversity and Accessibility:

It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students’ learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, religion, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups.

It is also my intent to ensure accessibility to all students. If you encounter barriers, please let me know immediately so that we can see if a material adjustment is needed. If you have a disability 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, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass.

Expectations for Class Conduct:

For everyone to feel safe and welcomed in the class, we will be developing a set of classroom norms during our first meeting. We will post these norms on Blackboard and refer to them during the semester.

Extra Credit

There will be 0-2 field trips, attending them will count for extra credit on exams and help your class participation grade. The field trips will be announced during the semester. I will also assign extra credit to attend lectures and presentations from the Department of Geological Sciences. Other extra credit assignments may be assigned randomly during the semester.

iClicker Cloud:

We will be using the iClicker Cloud Classroom Response System (CRS) technology in class, which allows instructors to ask questions, gather student responses, display those responses in real-time. See: https://www.utep.edu/technologysupport/ServiceCatalog/INST_ClassResponseSystem.html

Handy aids for study:

Several Spanish-English geology dictionaries are posted at the class Blackboard site in a folder. I will also provide relevant web sites for other material in the background material for each week (generally in the power points that cover the lecture materials). The teaching assistants also have found some videos in Spanish (as well as English) that cover lab and lecture topics.

Academic Honesty:

This course has a zero tolerance policy for cheating and plagiarism. This means that a demonstrable first offense (such as using websites hosting past homework assignments like chegg, clearly plagiarized copies of work, and anything else falling into UTEP’s academic dishonesty policy, will result in an F in the class. Do not test this. It’s not worth it.

The Geological Sciences Department has gone to great lengths in order to make learning the material easier than engaging in scholastic dishonesty, which is defined in the UTEP Student Handbook and also at http://www.utep.edu/dos. Proven violations of these detailed regulations may result in any of the consequences outlined in the Student Handbook.
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Quiz</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aug. 29, 31</td>
<td>Intro. to Class</td>
<td>Q0-syllabus</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Sep. 5, 7</td>
<td>Plate Tectonics</td>
<td>Q1-Plate tectonics</td>
<td>A1-Cities on plate boundaries, Rio Grande rift</td>
</tr>
<tr>
<td>3</td>
<td>Sep. 12, 14</td>
<td>Earth Materials</td>
<td>Q2-Minerals</td>
<td>A2- Everyday uses of minerals, mineral economics</td>
</tr>
<tr>
<td>4</td>
<td>Sep. 19</td>
<td>Igneous Environments</td>
<td></td>
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<td></td>
<td>Sep. 21</td>
<td><strong>Midterm Exam I</strong></td>
<td></td>
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<tr>
<td>5</td>
<td>Sep. 26, 28</td>
<td>Sedimentary Rocks</td>
<td>Q3-Igneous rocks, Volcanic hazards</td>
<td>A3- Volcanic hazards</td>
</tr>
<tr>
<td>6</td>
<td>Oct. 3, 5</td>
<td>Deformation and Metamorphism</td>
<td>Q4-Sedimentary and metamorphic rocks</td>
<td>A4-Engineering properties of sedimentary and metamorphic rocks</td>
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<tr>
<td>7</td>
<td>Oct. 10, 12</td>
<td>Deformation and Metamorphism Rock Properties</td>
<td>Q5-Rock Properties</td>
<td>A5- Rock mechanics</td>
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<tr>
<td>8</td>
<td>Oct. 17, 19</td>
<td><strong>Midterm Exam II</strong></td>
<td></td>
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<td></td>
<td></td>
<td>Structural Geology-1</td>
<td></td>
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<td>9</td>
<td>Oct. 24, 26</td>
<td>Structural Geology-2</td>
<td>Q6-Structural Geology</td>
<td>A6- Geotechnical site investigation</td>
</tr>
<tr>
<td>10</td>
<td>Oct. 31, Nov. 2</td>
<td>Nonseismic Geophysics</td>
<td>Q7-Nonseismic Geophysics</td>
<td>A7- Nonseismic geophysics for geotechnical investigations</td>
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<tr>
<td>11</td>
<td>Nov. 7</td>
<td>Seismic Geophysics</td>
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<td></td>
<td>Nov. 9</td>
<td><strong>Midterm Exam III</strong></td>
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<tr>
<td>12</td>
<td>Nov. 14, 16</td>
<td>Earthquakes</td>
<td>Q8-Seismic Geophysics</td>
<td>A8- Seismic geophysics for geotechnical investigations</td>
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<tr>
<td>13</td>
<td>Nov. 21, 23</td>
<td>Streams and Flooding</td>
<td>Q9-Rivers</td>
<td>A9- Flooding</td>
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<tr>
<td>Day</td>
<td>Dates</td>
<td>Topic</td>
<td>Quiz Number</td>
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<td>14</td>
<td>Nov. 28, 30</td>
<td>Groundwater</td>
<td>Q10-Groundwater</td>
<td>A10-Groundwater</td>
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<tr>
<td>15</td>
<td>Dec 5, 7</td>
<td>Slope Stability</td>
<td>Q11-Slope Stability</td>
<td>A11-Slope stability</td>
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<tr>
<td>16</td>
<td><strong>Dec 12</strong></td>
<td><strong>Final Exam; Tues. 1:00 – 3:45 pm</strong></td>
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