GEOL 3303: Environmental Geology (3 credits)
Spring 2020
Section 010 TR 11:00am-12:15pm (VIN 146)

Instructor: Dr. Heather L. Lehto
Email: Heather.Lehto@angelo.edu
Office hours: VIN 127, T 9:30-11am and 2-4pm, W 11am-12pm, R 9:30-11am or by appointment

REQUIRED TEXTBOOKS:
- Environmental Geology Today, 1st Ed., by Robert L. McConnell and Daniel C. Abel

COURSE OBJECTIVES:
At the end of this course you should be able to:
1. Discuss the difference between a hazard and a risk
2. Evaluate an area for the following natural hazards:
   a) Floods
   b) Landslides
   c) Earthquakes
   d) Volcanoes
   e) Coastal hazards
3. Determine the best site for a landfill
4. Create potentiometric maps from well log data
5. Determine the source of pollution given well log and surface data
6. Evaluate the potential benefit and risk from an energy resource
7. Evaluate your own contribution to climate change

The course objectives will be assessed using assignments, exams, and IDEA evaluations.

EXPECTATIONS:

Workload
It is generally agreed upon that students spend one to two hours studying and preparing for each one hour spent in class. As this is a 3 hour course, that means you should be spending 3-6 hours per week studying for this course. Over the next semester we will cover 9 chapters of your text. We will NOT be covering every bit of material from each Chapter in class, however it MAY show up on your Exams. This means you are responsible for reading each chapter and studying the material on your own in order to earn an average or better grade. Do NOT underestimate the workload for this course. Stay on top of your reading, ask questions, and participate in class and it will give you the best chance of passing this course.

Attendance
Attendance is highly recommended as we will be covering a large amount of material in lecture as well as at least one in-class assignment per chapter, which will be part of your grade.

Excused Absences
Students are excused from class for university events (e.g. athletics, debate trips, and certain music trips) and circumstances beyond the student’s control such as extended illness, medical emergency, and family emergency. Students will be allowed to make up any in-class assignments or Exams with the proper documentation for the absence (e.g., doctor’s note for illness or injury, and/or email explaining the reason for the absence sent ASAP).

1 A student of this institution is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.
My expectations for you

- Be prepared for lecture (do the reading prior to class, print off any relevant materials)
- Actively participate in lecture
- Take responsibility for your own learning (seek help if you are having a hard time)
- Be familiar with the course policies in the syllabus
- Do NOT use cellphones in class (they must be turned OFF, NOT silent when you are in class)
- Be respectful of all persons in this classroom (arriving late, leaving early, or talking during class is distracting and discourteous)

What you can expect from me

- Be enthusiastic and knowledgeable about the course material
- Present course material in an organized way
- Start and end lectures on time
- Set high standards for the class and help you meet those standards
- Treat you with fairness and respect

COURSE WEBPAGE

The course has a website through Blackboard that you will be used extensively throughout the semester, it is your responsibility to check the website often.

CELL PHONES AND OTHER ELECTRONIC DEVICES

Cell phones must be turned OFF (not simply on silent) while in class. In addition, it is unacceptable to engage in text messaging during the class meeting time. If you are using any electronic devices other than a calculator (not your phone in calculator mode), a voice recorder, or a laptop computer to take notes, you may be asked by the instructor to leave the classroom for the remainder of the class period. The use of any electronic device not authorized by the instructor during a test may result in the forfeiture of your grade for that test. All electronic devices should be turned off and stored out of sight during tests.

GRADING

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
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<tbody>
<tr>
<td>30%</td>
<td>10 Assignments (3% each)</td>
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<tr>
<td>15%</td>
<td>3 Exams (5% each)</td>
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<tr>
<td>20%</td>
<td>1 Comprehensive Final Exam</td>
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<tr>
<td>20%</td>
<td>1 Research paper (including annotated bibliography, outline, and final draft)</td>
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<tr>
<td>5%</td>
<td>1 Comments on Peer’s Rough Draft</td>
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<tr>
<td>10%</td>
<td>1 Oral Presentation</td>
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Assignments

There will be 10 assignments that will be completed either in-class or as homework. If you have to miss class due to an extenuating circumstance you must notify me ASAP and I will give you the assignment details.

Exams

There will be THREE exams administered during the semester that will cover the material from lecture, the readings, and the assignments. Make-up exams will be given under extenuating circumstances. Prior written notification is needed for a make-up exam.

Final exam
One (1) comprehensive final exam will be given during the scheduled final exam time. There will be more information available on the final near the end of the semester.

**Research paper**

You will have an 8-10 page research paper due at the end of the semester. You MUST have your topic approved by me before you may get started. The following is a list of the tasks that will be required as part of the grade for your research paper. Any tasks that are late or not completed will result in a 5% deduction off your final grade.

Paper topics must be on a major landslide anywhere in the world. You must be careful to choose a topic that has enough research done on it so that you can discuss it in 8-10 pages. See me if you have questions.

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<thead>
<tr>
<th>Topic approved by</th>
<th>January 30</th>
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<tbody>
<tr>
<td>Annotated Bibliography Due</td>
<td>February 11</td>
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<tr>
<td>Outline Due</td>
<td>February 25</td>
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<tr>
<td>Rough Draft Due</td>
<td>March 24</td>
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<td>Rough Draft Comments Due</td>
<td>April 9</td>
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<td>Oral Presentations</td>
<td>April 23 &amp; 28</td>
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<tr>
<td>Final Draft Due</td>
<td>April 30</td>
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**Oral presentation**

At the end of the semester you will present a 5-10 minute oral presentation on your research paper topic. This presentation can be anything of your choosing, from a powerpoint talk to a pre-recorded video. Be creative and have fun with this! However, make sure you are conveying the important points of your paper in this presentation.

**General Policies Related to This Course**

All students are required to follow the policies and procedures presented in these documents:

- Angelo State University Student Handbook
- Angelo State University Catalog

**Academic Integrity**

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Science and Engineering adheres to the university’s Statement of Academic Integrity.

**Accommodations for Students with Disabilities**

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student’s responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the
Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the Student Disability Services website. The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford  
Director of Student Disability Services  
Office of Student Affairs  
325-942-2047  
dallas.swafford@angelo.edu  
Houston Harte University Center, Room 112

Incomplete Grade Policy

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 Grading Procedures for more information.

Plagiarism

Plagiarism is a serious topic covered in ASU’s Academic Integrity policy in the Student Handbook. Plagiarism is the action or practice of taking someone else’s work, idea, etc., and passing it off as one’s own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality. Resources to help you understand this policy better are available at the ASU Writing Center.

Student Absence for Observance of Religious Holy Days

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for Observance of Religious Holy Day for more information.

Title IX at Angelo State University

The University prohibits discrimination based on sex, which includes pregnancy, sexual orientation, gender identity, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination including: sexual assault, sex-based discrimination, sexual exploitation, sexual harassment, public indecency, interpersonal violence (domestic violence and/or dating violence), and stalking. As a faculty member, I am a Responsible Employee meaning that I am obligated by law and ASU policy to report any allegations I am notified of to the Office of Title IX Compliance.

Students are encouraged to report any incidents of sexual misconduct directly to ASU’s Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator at:

Michelle Boone, J.D.  
Director of Title IX Compliance/Title IX Coordinator  
Mayer Administration Building, Room 210  
325-942-2022  
michelle.boone@angelo.edu
You may also file a report online 24/7 at www.angelo.edu/incident-form.

If you are wishing to speak to someone about an incident in confidence you may contact the University Health Clinic and Counseling Center at 325-942-2173 or the ASU Crisis Helpline at 325-486-6345.

For more information about Title IX in general you may visit www.angelo.edu/title-ix. ix

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2. https://www.angelo.edu/catalogs/
4. https://www.angelo.edu/services/disability-services/
5. https://www.angelo.edu/content/files/14197-op-1011-grading-procedures
7. https://www.angelo.edu/dept/writing_center/academic_honesty.php
8. https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of
<table>
<thead>
<tr>
<th>Week of</th>
<th>Lecture Topic</th>
<th>Reading</th>
<th>What is due</th>
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<tbody>
<tr>
<td>January 13-17</td>
<td>Syllabus and KS What is a Research Paper?</td>
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<tr>
<td>January 20-24</td>
<td><strong>Monday, January 20 (Holiday)</strong> Library visit Rivers and Flooding</td>
<td>Ch 9</td>
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<td>January 27-31</td>
<td>Rivers and Flooding Annotated Bibliography and Good Outlines</td>
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<td>Research Paper Topic Approved (R)</td>
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<td>February 3-7</td>
<td>Landslides</td>
<td>Ch 10</td>
<td>Assignment 1: Floods (T)</td>
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<tr>
<td>February 10-14</td>
<td>Earthquakes</td>
<td>Ch 6</td>
<td>Annotated Bibliography Due (T) Assignment 2: Slope Stability (R)</td>
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<td>February 17-21</td>
<td>Volcanoes</td>
<td>Ch 5</td>
<td>Assignment 3: Paleoseismicity (R)</td>
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<td>February 24-28</td>
<td>Volcanoes Exam 1: Chapters 6, 9, 10</td>
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<td>Outline Due (T)</td>
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<td>March 2-6</td>
<td>Writing your paper Waste Management</td>
<td>Ch 22</td>
<td>Assignment 4: Volcanic Hazard Map (T)</td>
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<td>March 9-13</td>
<td><strong>Spring Break!</strong></td>
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<td>March 16-20</td>
<td>Groundwater Resources</td>
<td>Ch 8</td>
<td>Assignment 5: Landfill Site (R)</td>
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<td>March 23-27</td>
<td>Reviewing a paper Water Pollution</td>
<td>Ch 18</td>
<td>Rough Draft Due (T) Assignment 6: Potentiometric Map (R)</td>
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<td>March 30 – April 3</td>
<td>Energy Resources</td>
<td>Ch 15, 16, 17</td>
<td>Assignment 7: Contamination (R) Assignment 8: Switch (R)</td>
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<td>April 6-10</td>
<td><strong>Exam 2: Chapters 5, 8, &amp; 22</strong> Parts of a good presentation Friday, April 10 (Holiday)</td>
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<td>Rough Draft Comments Due (R)</td>
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<td>April 13-17</td>
<td>Climate Change</td>
<td>Ch 20</td>
<td>Assignment 9: Carbon Footprint (R)</td>
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<td>April 20-24</td>
<td><strong>Exam 3: Chapters 15, 16, 17, 18, &amp; 20 Oral Presentations</strong></td>
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<td>April 27 - May 1</td>
<td>Oral Presentations Final Exam Review and Evals</td>
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<td>Final Draft Due (R)</td>
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<td>May 4-8</td>
<td><strong>Final Exam</strong> May 5, 10:30am-12:30pm</td>
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