GEOL 1303 Physical Geology Lecture (3 credits)
Fall 2020
Section 030 TR 11:00am-12:15pm
ROOM: VIN 139 and ONLINE

Instructor: Dr. Heather L. Lehto
Email: Heather.Lehto@angelo.edu
Office hours: Virtual Office Hours Only, TBD

REQUIRED MATERIALS:
- A mask or other face covering is required in class at all times.
- Smartwork5 Access (can purchase with textbook or separate)
- ASU email account that you check regularly
- Blackboard
- Webex Teams app
- Gradescope account
- Scanner app for you phone or an actual scanner

COURSE STRUCTURE
- This course will be run using a BlendFlex model. This means you will be assigned to one of two groups; one group attends in-person on Tuesday while the other attends online, then on Thursday we swap.
- You are required to attend both course sessions (Tuesday and Thursday) each week.
- You may NOT attend in-person on your groups at home day. You must attend online only.
- You will be given assigned seats (I know, it sucks, but we need to be able to contact trace if someone gets COVID) that you MUST sit in when you attend in-person.
- Attendance will be taken by the instructor each day for both the in-person and online groups.
- You will be required to participate in the in-class activities regardless of whether you are attending in-person or online.
- You may elect to take the course in an online only format. Please email me to let me know that you plan to do this. You will be required to attend class online for both days.
- We will be using WebEx Teams app to communicate with each other during and outside of class. You can download the app for your computer, iPhone, Android device, or tablet. You sign in using your ASU email address and password.
- Please refer to this Health and Safety web page for updated information about campus guidelines as they relate to the COVID-19 pandemic.

WEBEX TEAMS APP
We will be using an app called WebEx Teams to communicate with each other during and outside of class. This will allow us to work collaboratively but also maintain social distancing. You will need to download the app for your computer, smartphone (iPhone or Android), or tablet. You will log in using your ASU email address and password. Then Tuesday and Thursday during class you will need to be logged into the app.

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.
### Student Learning Objectives

Learning outcomes will be evaluated by the following assignments, activities, and exams.

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Assignment(s) or activity(ies) validating outcome achievement:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sketch and discuss the makeup and behavior of the physically and chemically different layers of the Earth.</td>
<td>1 Active Reading Document: Chapter 2; 1 Smartwork Homework: Structure of Earth; Scale Model of Our Earth; Module II Exam; Final Exam</td>
</tr>
<tr>
<td>Analyze data associated with the tectonics plates to understand how the theory of Plate Tectonics provides the explanation for the production of earthquakes, mountains, and volcanoes.</td>
<td>1 Active Reading Document: Chapters 3.3 &amp; 4; 1 Smartwork Homework: Plate Tectonics; Investigating Plate Tectonic Boundaries; Module II Exam; Final Exam</td>
</tr>
<tr>
<td>Interpret the formation history of minerals, and igneous, sedimentary, and metamorphic rocks.</td>
<td>1 Active Reading Document: Chapter 5; 2 Smartwork Homeworks: Minerals and Igneous Rocks &amp; Sedimentary and Metamorphic Rocks; Telling the Stories of the Rocks; Module III Exam; Final Exam</td>
</tr>
<tr>
<td>Evaluate hazards associated with volcanoes, earthquakes, floods, and coastal erosion.</td>
<td>4 Active Reading Documents: Chapters 9, 10.2-10.8, 17.8-17.9 and readings, 18.9 and readings; 4 Smartwork Homeworks: Volcanoes, Earthquakes, Floods, Coastal Erosion; 4 Weekly Assignments: Volcanic Hazard Assessment, Building in Earthquake Country, What has my town done to prepare for a flood?, Where did my beach go?; Module IV Exam; Final Exam</td>
</tr>
<tr>
<td>Place geologic events in age order using relative and numeric age dating techniques.</td>
<td>1 Active Reading Document: Chapter 12; 1 Smartwork Homework: Geologic Time; Geologic History of a Region; Module V Exam; Final Exam</td>
</tr>
<tr>
<td>Analyze the interdependence of streams, groundwater, and the ocean in the hydrologic cycle.</td>
<td>1 Active Reading Document: Interlude F.1-F.4, Chapters 17.1-17.6, 18.1-18.6, and 19.1-19.5 &amp; 19.7; 1 Smartwork Homework: Hydrologic Cycle, Streams, &amp; Groundwater; Follow a Drop of Water; Module VI Exam; Final Exam</td>
</tr>
<tr>
<td>Evaluate the good and bad aspects of various energy resources and their usefulness in different locations.</td>
<td>1 Active Reading Document: Chapter 14; 1 Smartwork Homework: Energy Resources; Energy Resources for a Changing World; Module VII Exam; Final Exam</td>
</tr>
<tr>
<td>Analyze the anthropogenic effect on climate change and predict the likely change in temperature on Earth in the near future.</td>
<td>1 Active Reading Document: Chapter 23; 1 Smartwork Homework: Climate Change; Using Climate Models to Look into the Future; Module VIII Exam; Final Exam</td>
</tr>
</tbody>
</table>
ATTENDANCE POLICY IN THE TIME OF COVID

How will class attendance work?

- You will be assigned to one of two groups.
- On Tuesday one group will attend class in-person, the other group will attend online from home.
- On Thursday the groups will switch the in-person and home attendance.
- You are required to sign in to Blackboard and participate in the class sessions when it is your ‘at-home’ day.
- You are required to have completed the health screening prior to attending class in-person. If you are flagged as potentially having COVID you will not be allowed to attend class in-person.
- NOTE: You are NOT automatically dropped if you stop attending class. So, if you want to drop the class you must do it through Ramport.

What if I’m sick?

- If you are sick (with anything, not just COVID), you are required to stay home. Rest, relax, drink plenty of fluids, and binge watch your favorite show (if you feel up to it).
- If you are feeling up to it you can participate online, however you are not required.
- I WILL require a note from a doctor stating that you were ill when you are able to return to class. You can get this from your regular doctor or from the ASU Health Clinic.
- Please email me to let me know if you aren’t feeling well so that we can make arrangements for activities, assignments, etc. that you may miss in your absence.
- I have organized the Smartwork Homework Sets, Weekly Assignments, and Reading Summaries so that you can miss up to 2 weeks of class and not have it affect your grade for those items. So, you don’t have to makeup those items for a grade if you don’t want to.
- You will still be required to take all 8 (eight) Exams and the Final Exam. However, I can extend due dates for those that are sick or have some other valid reason.

What if I have a pre-existing condition or simply don’t feel safe attending in-person classes?

- You may elect to complete this class entirely online.
- You do NOT have to give me any reason for wanting to attend online. Simply, tell me you plan to attend online only.
- You will be required to attend both weekly sessions online during the class time period. This is so that you will receive the same access to the weekly in-class activities that are designed to help you understand difficult concepts and complete your Weekly Assignment.
- You will be required to complete all other graded activities in class, you will just do it from the safety of your home.
- There will not be ANY penalties for choosing to attend entirely online. I respect your choice in this matter and will do my utmost to make sure you have as close to the same experience as any other classmate as I can.
- You may also elect at ANY time to change to an online only format. No questions asked. Simply notify me by email so that I know why you disappeared from in-person class (and so I don’t worry).

LIFE HAPPENS CLAUSE

Life happens to all of us. Despite our best efforts, some days nothing seems to go right. Your car breaks down on the way to school, you run out of the house without something and have to go back despite the fact that you were already running late, your boss calls you into work, or your child is sick and you
have to go pick them up from daycare/school. Or, you get so overwhelmed that everything seems too much to deal with.

If this happens to you, please email me. We will figure out what to do to keep you on track in the course. Whether that means extra tutoring sessions, deadline extensions, or something else. Please don’t suffer in silence. I want to help out, you just need to let me know what is going on.

**CELL PHONES AND OTHER ELECTRONIC DEVICES**
We will be using electronic messaging between students during class sessions. You may bring a laptop, tablet, or smartphone to class so that you can participate in this portion of the course. If you do not have any of these types of devices, let me know and we will make accommodations.

I do ask that you please be respectful of others and try to minimize distractions to those around you. Everyone paid to be in this class and deserves the opportunity to learn with minimal distractions.

**GRADING**
The grading system has been set up so that you can miss up to 2 weeks of class and not have it affect the grades for your Smartwork Homework Sets, Weekly Assignments, Reading Summaries, or Class Activities. You will be required to take all exams and the final exam. If you are unable to complete the exams on time, email me and we will decide on a makeup day/time.

<table>
<thead>
<tr>
<th>Number of Items</th>
<th>Name of item</th>
<th>Percent of grade per item</th>
<th>Number of Item Dropped</th>
<th>Total percent of grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Smartwork Homework Sets</td>
<td>1% each</td>
<td>2 lowest</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>Weekly Assignments</td>
<td>3% each</td>
<td>2 lowest</td>
<td>30</td>
</tr>
<tr>
<td>12</td>
<td>Active Reading Documents</td>
<td>2% each</td>
<td>2 lowest</td>
<td>18</td>
</tr>
<tr>
<td>24</td>
<td>Class Participation Submissions</td>
<td>1% each</td>
<td>4 lowest</td>
<td>20</td>
</tr>
<tr>
<td>8</td>
<td>Exams</td>
<td>2% each</td>
<td>2 lowest</td>
<td>12</td>
</tr>
<tr>
<td>1</td>
<td>Final Exam</td>
<td>10%</td>
<td>None</td>
<td>10</td>
</tr>
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</table>

**GRADING SYSTEM**

<table>
<thead>
<tr>
<th>Percentage range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-90%</td>
<td>A</td>
</tr>
<tr>
<td>89-90%</td>
<td>B</td>
</tr>
<tr>
<td>79-70%</td>
<td>C</td>
</tr>
<tr>
<td>69-60%</td>
<td>D</td>
</tr>
<tr>
<td>59-0%</td>
<td>F</td>
</tr>
</tbody>
</table>

**SMARTWORK HOMEWORK SETS**
To complete the Smartwork homework sets you will need to register with Smartwork using the registration code you got when you purchased the book. If you didn’t get a code when you purchased the book you can purchase one during the registration process. Use the following instructions to create an account with Smartwork:

To enroll in SmartWork you will need a valid ASU email address and a Registration Code from W. W. Norton. Registration codes are bundled with new books at your instructor’s request. If you do not have a registration code, you may purchase one when signing up.
Register For Smartwork

1. Click on the link for any Smartwork homework set from the Smartwork Homework Link in the menu in Blackboard.
2. Select “No, I need to register, purchase, or sign up for trial access.” Click the green button to continue.
3. Fill out all fields and enter either the registration code that came with your book or select the “I want to purchase access” option. NOTE: Use your ASU email as the email address for your Smartwork account. Don't forget to record your account information for future reference!

Access your Smartwork Homework Sets through the links in the appropriate area on Blackboard.

For each homework homework set you will complete a list of questions. You can submit answers to the questions up to 3 times, however, each additional submission after the first will cost you a 5% deduction on your grade. So don’t just go guess until you get it right, it will cost you.

WEEKLY ASSIGNMENTS
Each week you will have an assignment to complete that will involve higher order thinking. These assignments will take considerable time and are intended to be completed over the course of several hours. It is recommended that you do NOT save these until the last minute, instead work on them throughout the week. They comprise a major portion of your grade and I will be using them to write the exams, so it is best to work diligently and ask questions early and often. The assignments will all be assigned and turned in mainly via Gradescope, but sometimes via Blackboard.

ACTIVE READING DOCUMENTS
You will have active reading documents to complete for all of the assigned reading. These are designed to help you understand and digest the important parts of the assigned readings and can serve as study materials. They will be assigned and turned in through Blackboard.

IN-CLASS PARTICIPATION
Everyday we will work on an activity in class, whether you are in-person or online that day you will be required to complete and turn in the activity. Grades will be based on whether you completed the activity only. These will be assigned and turned in through Gradescope.

EXAMS
Exams will be administered online and will be open book, open note, open internet. You will be given a due date and time, but the exams themselves will not be timed and you can complete the exams earlier if you wish. The exams will consist of mainly project-style, short answer questions that will be modeled after the work you have completed for the subjects being tested. Multiple choice, T/F, etc. questions will NOT be included. All exams will be assigned and completed online through Blackboard.

FINAL EXAM
The Final Exam will be comprehensive and of the same style and format as the exams. It will be administered online through Blackboard.

CLASS COMMUNICATION AND YOUR ASU EMAIL
Since class announcements will be routinely distributed via Blackboard which is connected to your ASU email, you will need to regularly check your email account and our course Blackboard site (daily). All
course correspondence will be through your ASU email account and Blackboard. Please see the email policy in Bb for more details. ASU provides Internet and email services to you at any of the computer labs on campus. Call 942-2911 to set this up if necessary.

**COURSE EVALUATION**
Students are provided the opportunity and are strongly encouraged to participate in a course evaluation at the end of the semester.

**COUNSELLING SERVICES**
Our mental health is just as important as our physical health, particularly now that we are being socially distant. Humans are social creatures who need contact with other people to stay mentally healthy. During this time, it is more important than ever to seek help if you need it. You can always call or email me if you need to talk about something, but I also strongly encourage you to reach out to the ASU Counseling Services, who are available for help anytime you need it. You can find them in the University Health Clinic building or by calling 325-942-2371 Monday through Friday from 9am-3pm. Need help outside those hours? For emergencies call 911 or the ASU Crisis Helpline at 325-486-6345. You can also call the ASU Crisis Helpline for non-emergency issues as well.

**GEOLOGIC EXHIBITION ORGANIZATION (GEO)**
GEO, the student organization of all interested in geology (not just majors/minors), meets almost every Wednesday @ 6:00PM. GEO is a student chapter of the American Association of Petroleum Geologists, Sigma Gamma Epsilon, the national honor society of the earth sciences is related to GEO.

**MAJOR/MINOR IN GEOSCIENCE**
ASU offers both a BS in Geosciences and a Geoscience Minor which requires 18 hours of geology courses. Good and rewarding careers exist for geologists, geophysicists, hydrogeologists, secondary science teachers, and petroleum engineers, etc.

**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.

**REQUIRED USE OF MASKS/FACIAL COVERINGS BY STUDENTS**

As a member of the Texas Tech University System, Angelo State University has adopted the mandatory Facial Covering Policy\(^{xix}\) to ensure a safe and healthy classroom experience. Current research on the COVID-19 virus suggests there is a significant reduction in the potential for transmission of the virus from person to person by wearing a mask/facial covering that covers the nose and mouth areas.

Therefore, in compliance with the university policy students in this class are required to wear a mask/facial covering before, during, and after class. Faculty members may also ask you to display your daily screening badge as a prerequisite to enter the classroom. You are also asked to maintain safe distancing practices to the best of your ability. For the safety of everyone, any student not appropriately wearing a mask/facial covering will be asked to leave the classroom immediately. The student will be responsible to make up any missed class content or work. Continued non-compliance with the Texas Tech University System Policy may result in disciplinary action through the Office of Student Conduct.

**MODIFICATIONS TO THE SYLLABUS**

This syllabus, including grade evaluation and course schedule, is subject to modification. In particular, the COVID-19 pandemic may require significant changes in course delivery and content on potentially short notice.

The faculty member reserves the option to make changes as necessary to this syllabus and the course content. If changes become necessary during this course, the faculty will notify students of such changes by email, course announcements and/or via a discussion board announcement. It is the student’s responsibility to look for such communications about the course on a daily basis.
<table>
<thead>
<tr>
<th>Class Dates (Tuesday &amp; Thursday)</th>
<th>Module Number</th>
<th>Topic of the Week</th>
<th>Weekly Assignment Due Sunday @11:59pm on week listed</th>
<th>Online Exam Due Sunday @11:59PM on week listed</th>
<th>Active Reading Document Topic Due Sunday @11:59pm on week listed</th>
<th>Smartwork Homework Due Sunday @11:59pm on week listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 18 &amp; 20</td>
<td></td>
<td>Course Overview, Icebreaker Geology Careers, Campus Services</td>
<td></td>
<td>Chapter 2</td>
<td>Structure of the Earth</td>
<td></td>
</tr>
<tr>
<td>August 25 &amp; 27</td>
<td>I</td>
<td>Structure of the Earth</td>
<td>Scale Model of Our Earth</td>
<td>Chapters 3.3 &amp; 4</td>
<td>Plate Tectonics</td>
<td></td>
</tr>
<tr>
<td>September 1 &amp; 3</td>
<td>II</td>
<td>Plate Tectonics</td>
<td>Investigating Plate Tectonics</td>
<td>Module I Exam</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>September 8 &amp; 10</td>
<td>II</td>
<td>No classes Monday, Sept. 7 Plate Tectonics (con’t)</td>
<td>Investigating Plate Tectonics</td>
<td>Module II Exam</td>
<td>Chapters 5 &amp; 6</td>
<td>Minerals and Igneous Rocks</td>
</tr>
<tr>
<td>September 15 &amp; 17</td>
<td>III</td>
<td>Minerals and Igneous Rocks</td>
<td>Telling the Stories of the Rocks</td>
<td>Module III Exam</td>
<td>Chapters 7 &amp; 8</td>
<td>Sedimentary and Metamorphic Rocks</td>
</tr>
<tr>
<td>September 22 &amp; 24</td>
<td>III</td>
<td>Sedimentary and Metamorphic Rocks</td>
<td>Telling the Stories of the Rocks</td>
<td>Module III Exam</td>
<td>Chapter 9</td>
<td>Volcanoes</td>
</tr>
<tr>
<td>September 29 &amp; October 1</td>
<td>IV</td>
<td>Evaluating Earth’s hazards: Volcanoes</td>
<td>Volcanic Hazards Assessment</td>
<td></td>
<td>Chapter 10 (10.2-10.8)</td>
<td>Earthquakes</td>
</tr>
<tr>
<td>October 6 &amp; 8</td>
<td>IV</td>
<td>Evaluating Earth’s hazards: Earthquakes</td>
<td>Building in Earthquake Country</td>
<td></td>
<td>Chapter 17 (17.8-17.9) Severe Weather 101 website</td>
<td>Floods</td>
</tr>
<tr>
<td>October 13 &amp; 15</td>
<td>IV</td>
<td>Evaluating Earth’s hazards: Floods</td>
<td>What has my town done to prepare for a flood?</td>
<td></td>
<td>Chapter 18.9 Coastal Erosion Wiki</td>
<td>Coastal Erosion</td>
</tr>
<tr>
<td>October 20 &amp; 22</td>
<td>IV</td>
<td>Evaluating Earth’s hazards: Coastal Erosion</td>
<td>Where did my beach go?</td>
<td>Module IV Exam</td>
<td>Chapter 12</td>
<td>Geologic Time</td>
</tr>
<tr>
<td>October 27 &amp; 29</td>
<td>V</td>
<td>Geologic History and the order of things</td>
<td>Geologic History of a Region</td>
<td>Module V Exam</td>
<td>Interlude F.1-F.4 Chapter 17.1-17.6 Chapter 18.1-18.6 Chapter 19.1-19.5 and 19.7</td>
<td>Hydrologic Cycle, Streams, &amp; Groundwater</td>
</tr>
<tr>
<td>November 3 &amp; 5</td>
<td>VI</td>
<td>Following the Hydrologic Cycle: How Water Moves Around our Planet.</td>
<td>Follow a Drop of Water</td>
<td>Module VI Exam</td>
<td>Chapter 14</td>
<td>Energy Resources</td>
</tr>
<tr>
<td>November 10 &amp; 12</td>
<td>VII</td>
<td>Energy and Our World</td>
<td>Energy Resources for a Changing World</td>
<td>Module VII Exam</td>
<td>Chapter 23</td>
<td>Climate Change</td>
</tr>
<tr>
<td>November 17 &amp; 19</td>
<td>VIII</td>
<td>Climate Change and the Future of Humanity</td>
<td>Using Climate Models to Look into the Future</td>
<td>Module VIII Exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>November 21</td>
<td></td>
<td></td>
<td></td>
<td>Final Exam - Online</td>
<td></td>
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</table>