

GEOL 1301 Earth Science Lecture (3 credits)
Spring 2021
Section D10 and D20 Meets online

INSTRUCTOR: Dr. Heather L. Lehto
EMAIL: Heather.Lehto@angelo.edu
OFFICE HOURS: Virtual Office Hours Only
VIRTUAL OFFICE HOURS: Online through Collaborate, TBD
Prerequisite courses: None

PREREQUISITE SKILLS

Accessing internet web sites, use of ASU Library resources, and proficiency with Microsoft Word and/or PowerPoint are expectations of the Health Science Professions Program. Computer access requirements are further delineated in the Undergraduate Handbook. Tutorials for ASU Library and for Blackboard are available through RamPort. The ASU Undergraduate/Graduate Student Handbook should be reviewed before taking this course.

COURSE DELIVERY

This is an online course that will be delivered via [Blackboard](#)ⁱ. If you choose, you can complete this course without visiting the ASU campus.

Please refer to this [Health and Safety web page](#)ⁱⁱ for updated information about campus guidelines as they relate to the COVID-19 pandemic.

The course is organized into modules based on like topics. Each module is then broken down by week and weeks run from Monday to Sunday. All assignments, discussion/journal/wiki posts, exams, and group projects are due on Sunday @11:59pm, unless otherwise stated.

COURSE DESCRIPTION

An introduction to the study of the Earth including the atmosphere, geosphere, hydrosphere, and cryosphere. The course will cover general overview of topics such as: rocks and minerals, streams, the ocean, groundwater, weather, climate, plate tectonics, and natural hazards.

REQUIRED MATERIALS:

- TEXTBOOK: [Earth Science, Lumen Learning](#)ⁱⁱⁱ (open-source, free textbook)
- TopHat (purchased through bookstore)
- ASU email account that you check regularly
- Blackboard
- Computer with MAC or Windows Operating System
- High Speed Internet Access
- Webcam and microphone
- Refer to [Angelo State University's Distance Education](#)^{iv} website for technology requirements

STUDENT LEARNING OBJECTIVES

Learning outcomes will be evaluated by online discussions, journals, wikis, exams, and an IDEA course evaluation.

Student Learning Outcomes By completing this course, the student should be able to:	Assignment(s) or activity(ies) validating outcome achievement:
Describe the structure of the Earth and the materials it is made of.	Earth's Interior, Atoms to Molecules, States of Matter, Igneous Rocks, Sedimentary Rocks, Metamorphic Rocks Chapters; Structure of the Earth, Continental Drift, and Plate Tectonics, Minerals, Igneous Rocks, Sedimentary Rocks, Metamorphic Rocks Assignments; Module I Exam
Explain how humans use energy resources in our daily lives, and how these resources form.	The Government and Energy Resources Discussion; Energy Resources Assignment; Module III Exam
Describe how plate tectonics shapes the Earth.	Plate Tectonics, Tectonic Stress and Geologic Structures, Mountain Formation, Volcanoes, Volcanic Activity, Types of Volcanoes, and Volcanic Eruptions, and Earthquakes Chapters; Structure of the Earth, Continental Drift, and Plate Tectonics, Mountain Building & Geologic Time, Volcanoes & Earthquakes Assignments; Module I Exam and Module II Exam
Place geologic events in order using the geologic principles and correlate layers on a regional scale.	Relative Ages of Rocks, Absolute Ages of Rocks, and Geologic Time Scale Chapters; Mountain Building & Geologic Time Assignments
Describe how water moves around the Earth.	Earth's Fresh Water, Streams and Rivers, Groundwater, Water Resources, Floods, Wetlands, Introduction to the Oceans, Composition of Ocean Water, The Seafloor, Ocean Currents, Oceans and Coastal Environments, Tides, Currents, Waves and Coastal Features, and Thermohaline circulation Chapters; Water Resources in Texas Journal, Beach Erosion Discussion; Hydrologic Cycle, Streams, and Groundwater, and Oceans Assignments; Module III Exam
Explain the fundamental processes that create weather and control climate.	The Atmosphere, Weather Processes and Systems, Climate Systems and Change, Climate and Weather, and Global Climate Change Chapters; The Atmosphere, Weather, and Climate Assignments; Evaluating news articles about climate change and wildfires Discussion; Group Activity: Weather Observations; Module IV Exam
Describe how the universe and solar system were formed and their current structure.	The Universe, Stars, The Sun, The Sun and the Earth-Moon System, Sun - Earth Relationship: The Seasons, Introduction to the Solar System, Inner Planets, Outer Planets, and Other Objects in the Solar System Chapters; The Universe and our Solar System Assignment; Module V Exam

GRADING

Number of Items	Name of item	Percent of grade per item	Number of Item Dropped	Total percent of grade
8	Discussion/Journal/Wiki Posts	3% each	Lowest 1	21%
14	TopHat Homework assignments	4% each	Lowest 2	48%
1	Group project	11% each	None	11%
5	Exams	5% each	Lowest 1	20%

GRADING SYSTEM

100-90%	A
89-80%	B
79-70%	C
69-60%	D
59-0%	F

EXAMS AND RESPONDUS LOCKDOWN BROWSER AND RESPONDUS MONITOR

During the semester there will be four (5) online exams in BlackBoard. The deadlines for these tests are on BlackBoard and in the course schedule. Access to Exams will be through Respondus™ Lockdown Browser and will be video recorded via Respondus™ Monitor (See Other Required Materials for a list of needed equipment). Use of another electronic device is prohibited during exams.

It is your responsibility to install the program and to know how to use it. You may access installation and tutorials for Respondus Lockdown Browser and Respondus Monitor via the Orientation page in Blackboard. If you have any problems contact the ASU IT Service Center (325-942-2911). If you lose power or connection during an exam submit the exam as soon as you can and contact me immediately to notify me of the issue.

The following list applies to all exams given in the course:

- Exams are all closed note.
- You are **NOT** permitted to use your notes, the book, another person, or any online search engine or website to look up the answers to the questions in the exam.
- You must complete your exam using Respondus™ Lockdown Browser and will be video recorded via Respondus™ Monitor.
- You must be in the video frame during the test time.
- You must not cover the webcam during the exam, violation of this will be considered cheating. If you cover the webcam during the exam you will received a grade of 0 for the exam.
- If you are seen asking someone else for answers or looking up information during the exam it will be considered cheating and you will received a grade of 0 for the exam.
- If there any other type of suspicious activity is observed while you are taking your exam it may be considered cheating.
- If a student receives more than one (1) failing grade for cheating on an exam they will be referred to the appropriate office for said violations.

TOPHAT ASSIGNMENTS

We will be using [Top Hat Pro](#)^v for class assignments. Reading assignments and videos to watch are included with each assignment, along with a set of questions to answer. If you already have a Top Hat account, go directly to the [TopHat course](#)^{vi}.

If you are new to Top Hat, follow the link in the email invitation you received or follow these steps:

1. Go to the [Registration Page](#)^{vii}
2. Click "Search by school" and input the name of our school
3. Search for our course with the following join code: 772323

For instructions on how to create a Top Hat account and enroll in our Top Hat Pro course, please refer to [Top Hat's Getting Started Guide](#)^{viii} OR [2 minute video walkthrough](#)^{ix}.

If a paid subscription is required, it will be listed at checkout when you enroll in our Top Hat Pro course.

Should you require assistance with Top Hat at any time please contact their Support Team directly by way of email (support@tophat.com), the in-app support button, or by calling 1-888-663-5491. Specific user information may be required by their technical support team when troubleshooting issues.

STUDENT RESPONSIBILITY & ATTENDANCE

This class is asynchronous, meaning you do not have to be on-line at a certain time. There are readings which you will have to complete to be able to adequately participate in individual assignments and group discussions. In order to complete this course successfully, you do have to participate in all course activities i.e. discussion boards, lab projects, homework, etc. Students are expected to engage in course activities and submit work by due dates and times. For planning purposes, this class will probably require a minimum of 6-9 study hours per week on average.

COMMUNICATION

Faculty will respond to email and/or telephone messages within 48 hours during working hours Monday through Friday. Weekend messages may not be returned until Monday.

All communication will be done exclusively through your ASU email address. Check frequently for announcements and policy changes.

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.

USE GOOD "NETIQUETTE":

- Check the discussion frequently and respond appropriately and on subject.
- Focus on one subject per message and use pertinent subject titles.
- Capitalize words only to highlight a point or for titles. Otherwise, capitalizing is generally viewed as SHOUTING!
- Be professional and careful with your online interaction. Proper address for faculty is by formal title such as Dr. unless invited by faculty to use a less formal approach.
- Cite all quotes, references, and sources.
- When posting a long message, it is generally considered courteous to warn readers at the beginning of the message that it is a lengthy post.
- It is extremely rude to forward someone else's messages without their permission.
- It is fine to use humor, but use it carefully. The absence of face-to-face cues can cause humor to be misinterpreted as criticism or flaming (angry, antagonistic criticism). Feel free to use emoticons such as J or :) to let others know you are being humorous.

(The "netiquette" guidelines were adapted from Arlene H. Rinald's article, The Net User Guidelines and Netiquette, Florida Atlantic University, 1994, available from Netcom.)

ASSIGNMENT SUBMISSION

In this class, some assignments will be submitted through the Assignments link in the Blackboard course site. This is for grading purposes. Issues with technology use arise from time to time. If a technology issue does occur regarding an assignment submission, email me at heather.lehto@angelo.edu and attach a copy of what you are trying to submit. This lets your faculty know you completed the assignment on time and are just having problems with the online submission feature in Blackboard. Once the problem is resolved, submit your assignment through the appropriate link. This process will document the problem and establish a timeline. Be sure to keep a backup of all work.

LATE WORK OR MISSED ASSIGNMENTS POLICY

The course is set up based on 1 week long modules. The week begins on Monday and ends on Sunday. Assignment due dates are shown on the calendar/schedule or posted within Blackboard. All assignments, discussions, journals, wikis, group activities, and exams are open and available from the beginning of the year until each respective due date. Late assignments are only accepted with prior approval of faculty.

COPYRIGHT POLICY

Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

COURSE EVALUATION

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

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 ([AAPG](#)) and Sigma Gamma Epsilon, the national honor society of the earth sciences.

YOU CAN MAJOR OR MINOR IN GEOLOGY @ ASU!

See the BS in [Geoscience requirements](#)^{xi}. A Geology Minor requires 18 hours of geology courses. Good and rewarding [careers](#)^{xii} exist for geologists, geophysicists, hydrogeologists, secondary science teachers, and petroleum engineers.

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](#)^{xiii}
- [Angelo State University Catalog](#)^{xiv}

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](#).^{xv}

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](#).^{xvi} 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](#)^{xvii} for more information.

PLAGIARISM

Plagiarism is a serious topic covered in ASU's [Academic Integrity policy](#)^{xviii} 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](#).^{xix}

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](#)^{xx} 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 Miller, J.D.
Special Assistant to the President and Title IX Coordinator
Mayer Administration Building, Room 210
325-486-6357
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](#)^{xxi} 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.

ⁱ <https://angelo.blackboard.edu/>

ⁱⁱ <https://www.angelo.edu/covid-19/returning-to-campus/health-and-safety.php>

ⁱⁱⁱ <https://courses.lumenlearning.com/earthscience/>

^{iv} <https://www.angelo.edu/online-education/>

^v www.tophat.com

^{vi} <https://app.tophat.com/e/772323>

^{vii} <https://app.tophat.com/register/student>

^{viii} <https://bit.ly/31TGMlw>

^{ix} <https://youtu.be/NNmVJWGu4iA>

^x <http://www.aapg.org>

^{xi} https://www.angelo.edu/physics/geoscience_degree.php

^{xii} http://www.angelo.edu/dept/physics/Geosciences/geoscience_careers.php

^{xiii} <https://www.angelo.edu/current-students/student-handbook/>

^{xiv} <https://www.angelo.edu/academics/catalog/>

^{xv} <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=96>

^{xvi} <https://www.angelo.edu/current-students/disability-services/>

^{xvii} <https://www.angelo.edu/content/files/14197-op-1011-grading-procedures>

^{xviii} <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=96>

^{xix} https://www.angelo.edu/current-students/writing-center/academic_honesty.php

^{xx} <https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of>

^{xxi} <http://www.texastech.edu/downloads/ttus-policy-face-coverings.pdf>

SCHEDULE: All information is subject to change.

Week #	Week of	Module	Topic for the Week	Textbook Reading	Exams	Discussion/Journal/Wiki/Group Activity	TopHat Homework
1	January 25-31	Welcome Module	Welcome Module			Memorable Geologic Event (Discussion)	
2	February 1-7	Module I: Earth Structure and Materials	Earth Structure, Continental Drift and Plate Tectonics	Earth's Interior, Plate Tectonics			Structure of the Earth, Continental Drift, and Plate Tectonics
3	February 8-14	Module I: Earth Structure and Materials	Minerals	Atoms to Molecules, States of Matter		Mineral Uses (Wiki)	Minerals
4	February 15-21	Module I: Earth Structure and Materials	Igneous Rocks	Igneous Rocks		Mineral Uses (Wiki, con't)	Igneous Rocks
5	February 22-28	Module I: Earth Structure and Materials	Sedimentary Rocks	Sedimentary Rocks			Sedimentary Rocks
6	March 1-7	Module I: Earth Structure and Materials	Metamorphic Rocks	Metamorphic Rocks	Exam 1: Module I	Rocks I Found (Journal)	Metamorphic Rocks
7	March 8-14	Module II: Earth Hazards and Geologic Time	Earthquakes and Geologic Time	Tectonic Stress and Geologic Structures, Mountain Formation, Relative Ages of Rocks, Absolute Ages of Rocks, and Geologic Time Scale			Mountain Building & Geologic Time
8	March 15-21	Module II: Earth Hazards and Geologic Time	Volcanoes and Mountain Building	Volcanoes, Volcanic Activity, Types of Volcanoes, and Volcanic Eruptions, and Earthquakes	Exam 2: Module II	Mitigating Hazards (Journal)	Volcanoes & Earthquakes
9	March 22-28	Module III: Energy Resources and the Hydrologic Cycle	Energy Resources			The Government and Energy Resources (Discussion)	Energy Resources
10	March 29-April 4 April 2 (University Closed)	Module III: Energy Resources and the Hydrologic Cycle	Streams and Groundwater	Earth's Fresh Water, Streams and Rivers, Groundwater, Water Resources, Floods, Wetlands		Water Resources in Texas (Journal)	Hydrologic Cycle, Streams, and Groundwater
11	April 5-11	Module III: Energy Resources and the Hydrologic Cycle	Oceans	Introduction to the Oceans, Composition of Ocean Water, The Seafloor, Ocean Currents, Oceans and Coastal Environments, Tides, Currents, Waves and Coastal Features, and Thermohaline circulation	Exam 3: Module III	Beach Erosion (Discussion)	Oceans
12	April 12-18	Module IV: Weather and Climate	Heating the Atmosphere and Weather Phenomena	The Atmosphere		Group Activity: Weather Observations (Due May 2)	The Atmosphere
13	April 19-25	Module IV: Weather and Climate	Weather	Weather Processes and Systems		Evaluating news articles about climate change and wildfires (Discussion)	Weather
14	April 26-May 2	Module IV: Weather and Climate	Climate	Climate Systems and Change, Climate and Weather, and Global Climate Change	Exam 4: Module IV	Group Activity: Weather Observations (Due May 2)	Climate
15	May 3-9	Module V: The Universe and the Solar System	The Structure of the Universe and our Solar System	The Universe, Stars, The Sun, The Sun and the Earth-Moon System, Sun - Earth Relationship: The Seasons, Introduction to the Solar System, Inner Planets, Outer Planets, and Other Objects in the Solar System	Exam 5: Module V		The Universe and our Solar System