

GEOL 1101 Earth Science Lab (1 credit)
Fall 2021
Section D1Z and D2Z Meets online

INSTRUCTOR: Dr. Heather L. Lehto
EMAIL: Heather.Lehto@angelo.edu
OFFICE HOURS: M 3-4pm, T 11am-12pm, F 10-11am, VIN 127
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. 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.

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 labs and pre-lab reading quizzes 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:

- No Lab Manual Needed
- TopHat Access Code (can be purchased through the 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](#)ⁱⁱ website for technology requirements

STUDENT LEARNING OBJECTIVES

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

| Student Learning Outcomes By completing this lab 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. | Minerals Lab Materials, Igneous Rocks Lab Materials, Sedimentary Rocks Lab Materials, Metamorphic Rocks Lab Materials; Minerals, Igneous Rocks, Sedimentary Rocks, Metamorphic Rocks Pre-lab reading quizzes; Minerals, Igneous Rocks, Sedimentary Rocks, Metamorphic Rocks Lab Activities |
| Describe how water moves around the Earth. | Floods and Flooding Materials; Rivers and Flooding, Investigating Sea Level Pre-lab reading quizzes; Rivers and Flooding, Investigating Sea Level Lab Activities |
| Explain the fundamental processes that create weather and control climate. | Using Climate Models Pre-lab reading quiz; Using Climate Models Lab Activity |
| Describe how the universe and solar system were formed and their current structure. | Moon Phases Pre-lab reading quiz; Moon Phases Lab Activity |

GRADING

| Number of Items | Name of item | Percent of grade per item | Number of Item Dropped | Total percent of grade |
|-----------------|-------------------------|---------------------------|------------------------|------------------------|
| 9 | Pre-lab Reading Quizzes | 5% each | Lowest 1 | 40% |
| 9 | Lab Activities | 7.5% each | Lowest 1 | 60% |

GRADING SYSTEM

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

LAB ACTIVITIES

There will be 9 lab activities which will comprise the bulk of the grade for lab. Lab activities will include four (4) that cover identifying mineral and rock samples and will use TopHat (the same platform used for your lecture homework, to learn how to register for TopHat see Blackboard). The rest of the labs will be completed through Blackboard but will often use tools from other websites. The labs will not open until you have completed the pre-lab reading quizzes.

PRE-LAB READING QUIZZES

Each lab has pre-lab reading and/or videos to watch that include content necessary to complete the labs. This material should be read before taking the pre-lab reading quizzes. Once you have completed the pre-lab reading quiz, the lab activity will open and the lab can then be completed.

TOPHAT LABS

We will be using [Top Hat Pro](#)ⁱⁱⁱ for 4 of the lab activities. If you already have a Top Hat account, go directly to the [TopHat course](#)^{iv}. NOTE: If you have already signed up for TopHat for the lecture section you will use this same sign on for the lab.

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](#)^v
2. Click "Search by school" and input the name of our school
3. Search for our course with the following join code: 498874 (NOTE: This is a different join code that for the lecture section)

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](#)^{vi} OR [2 minute video walkthrough](#)^{vii}.

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. When in doubt, err on the side of formal. Don't say anything or in a way that you wouldn't in front of your grandma.
- Cite all quotes, references, and sources.
- When posting a long message, it is generally considered courteous to provide a TLDR (too long, didn't read) summary.
- 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 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 me 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, you never know when the internet gremlin will eat an assignment.

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. Late assignments are not accepted without 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^{viii}](#)) 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](#)^{ix}. A Geology Minor requires 18 hours of geology courses. Good and rewarding [careers](#)^x 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](#)^{xi}
- [Angelo State University Catalog](#)^{xii}

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](#).^{xiii}

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](#).^{xiv} 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](#)^{xv} for more information.

PLAGIARISM

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

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](#)^{xviii} for more information.

TITLE IX AT ANGELO STATE UNIVERSITY

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Miller, J.D. You may submit reports in the following manner:

Online: [Incident Reporting Form](#)^{xix}

Face to Face: Mayer Administration Building, Room 210

Phone: 325-942-2022

Email: michelle.miller@angelo.edu

Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State's policy please visit the [Title IX website](#)^{xx}.

INFORMATION ABOUT COVID-19

Please refer to ASU's [COVID-19 \(Coronavirus\) Updates](#)^{xxi} web page for current information about campus guidelines and safety standards as they relate to the COVID-19 pandemic.

MODIFICATIONS TO THE SYLLABUS

This syllabus, including grade evaluation and course schedule, is subject to modification. 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 http://www.angelo.edu/distance_education/

ⁱⁱⁱ www.tophat.com

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

^v <https://app.tophat.com/register/student>

^{vi} <https://bit.ly/31TGMIw>

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

^{viii} <http://www.aapg.org>

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

^x http://www.angelo.edu/dept/physics/Geosciences/geoscience_careers.php

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

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

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

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

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

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

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

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

^{xix} <https://www.angelo.edu/incident-form>

^{xx} <https://www.angelo.edu/title-ix>

^{xxi} <https://www.angelo.edu/covid-19/>

SCHEDULE: All information is subject to change.

| Week # | Week of | Module | Topic for the Week | Reading | Pre-Lab Reading Quiz | Lab Activities |
|--------|---------------------------------------------|-------------------------------------------------------|--------------------------------------------------------|---------------------------------|-----------------------------------------------|------------------------------|
| 1 | August 23-29 | Welcome Module | Welcome Module | | | |
| 2 | August 30 – September 5 | Module I: Earth Structure and Materials | Earth Structure, Continental Drift and Plate Tectonics | Website and Videos | Pre-lab reading quiz: Baloney Detection Kit | Lab: Baloney Detection Kit |
| 3 | September 6-12 Holiday, Sept 6 | Module I: Earth Structure and Materials | Minerals | Minerals Lab Materials | Pre-lab reading quiz: Minerals | Lab: Minerals |
| 4 | September 13-19 | Module I: Earth Structure and Materials | Igneous Rocks | Igneous Rocks Lab Materials | Pre-lab reading quiz: Igneous Rocks | Lab: Igneous Rocks |
| 5 | September 20-26 | Module I: Earth Structure and Materials | Sedimentary Rocks | Sedimentary Rocks Lab Materials | Pre-lab reading quiz: Sedimentary Rocks | Lab: Sedimentary Rocks |
| 6 | September 27 – October 3 | Module I: Earth Structure and Materials | Metamorphic Rocks | Metamorphic Rocks Lab Materials | Pre-lab reading quiz: Metamorphic Rocks | Lab: Metamorphic Rocks |
| 7 | October 4-10 | Module II: Earth Hazards and Geologic Time | Mountain Building and Geologic Time | | | |
| 8 | October 11-17 | Module II: Earth Hazards and Geologic Time | Volcanoes and Earthquakes | Websites and video | Pre-lab reading quiz: Volcanic Hazards | Volcanic Hazards |
| 9 | October 18-24 | Module III: Energy Resources and the Hydrologic Cycle | Energy Resources | | | |
| 10 | October 25-31 | Module III: Energy Resources and the Hydrologic Cycle | Streams and Groundwater | | | |
| 11 | November 1-7 | Module III: Energy Resources and the Hydrologic Cycle | Oceans | Website | Pre-lab reading quiz: Investigating Sea Level | Lab: Investigating Sea Level |
| 12 | November 8-14 | Module IV: Weather and Climate | Heating the Atmosphere | | | |
| 13 | November 15-21 | Module IV: Weather and Climate | Weather Phenomena | Website | Pre-lab reading quiz: Using Climate Models | Lab: Using Climate Models |
| 14 | November 22-28 Holiday, Nov 24-26 | Module IV: Weather and Climate | Climate | | | |
| 15 | November 29 – December 5 | Module V: The Universe and the Solar System | The Structure of the Universe and our Solar System | Website and Video | Pre-lab reading quiz: Moon Phases | Lab: Moon Phases |