

**GEOL 1101 Earth Science Lab (1 credit)**  
**Spring 2022**  
**Section D1Z and D2Z Meets online**

**INSTRUCTOR:** Dr. Heather L. Lehto

**EMAIL:** Heather.Lehto@angelo.edu

**OFFICE HOURS:** In-Person, MWF 10-11am, VIN 127, or by appointment

**VIRTUAL OFFICE HOURS:** Online through Collaborate, TBD, or by appointment

Prerequisite courses: None

**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](#)<sup>i</sup> Access Code (can be purchased through the bookstore)<sup>1</sup>
- ASU email account that you check regularly
- Blackboard
- Computer with MAC or Windows Operating System
- High Speed Internet Access

**GETTING HELP FOR COURSEWORK**

I will be holding both in-person and virtual office hours this semester (these are listed above, under my email). You are also welcome to make an appointment to meet me at a different time if you need to. In addition, if you have a question and I am in my office (or walking around the building) feel free to stop me and ask.

We also have a geology tutor in the [Tutoring Office](#)<sup>ii</sup>. I will post the name of the tutor, their email, and their tutoring hours in Blackboard.

Another valuable source of help are your fellow classmates. It is helpful to get to know a few people in class and exchange contact info. You might also consider forming a student study group that meets regularly to work on assignments or study for exams. A good peer support system is invaluable in this and future courses.

**TECHNICAL SUPPORT**

Should you need help with Blackboard, Rampart, ASU email accounts, passwords resets, etc. you can contact the [ASU IT Help Desk](#)<sup>iii</sup> (325-942-2911). They should be able to help you troubleshoot your issue and resolve it. If they can't fix the issue please let me know, especially if it will affect your ability to complete your coursework.

**COURSE DELIVERY**

---

<sup>1</sup> 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.

This is an online course that will be delivered via [Blackboard](#)<sup>iv</sup>. If you choose, you can complete this course without visiting the ASU campus. This course is also asynchronous, meaning you do not have to be on-line at a certain time.

To access and complete this course you will need to know how to access internet web sites, use ASU Library's resources, and be familiar with Microsoft Word and/or PowerPoint.

You will also need to know how to access and navigate the course in Blackboard. If you are unfamiliar with Blackboard you can find information and tutorials our Blackboard course in the 'Help and Info about the class' section in the main menu or on the Technology Support tab at the very top of the page in Blackboard. If you have trouble finding these resources please contact me or the [ASU IT Service Center](#)<sup>v</sup> (325-942-2911).

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 of the week listed, unless otherwise stated in the schedule at the end of this syllabus.

There are readings and/or videos to watch that should be completed before taking the pre-lab reading quizzes. Once you complete the Pre-lab reading quiz the link for the lab itself will show up in Blackboard, you will then need to complete the lab. To complete this lab successfully, it is advised that you participate in all lab activities. Students who complete all of the pre-lab reading quizzes and labs are much more likely to do well in the course.

For planning purposes, this class will probably require about 3-6 hours of work per week on average. However, some weeks you will not have anything due in lab. Be sure to check the schedule at the end of this syllabus for more information.

### **COMMUNICATION**

I will generally respond to email messages within a few hours. However, on occasion I have things going on in my life that prevent a rapid reply. In those situations I will respond to emails within 48 hours during working hours Monday through Friday. Weekend messages may not be returned until Monday.

Most of my communication to you will be through announcements on Blackboard. I prefer to communicate through announcements so that there is a record of my communication that can be found easily and won't get eaten by the spam monster. However, if it is a sensitive matter or simply does not pertain to the entire course I will email using your ASU email account.

### **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.

## 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

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

## LAB ACTIVITIES

There will be nine (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 below). 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 link to the lab activity will open and the lab can then be completed.

## TOPHAT LABS

We will be using Top Hat for 4 of the lab activities. If you already have a Top Hat account, go directly to the [TopHat course](#)<sup>vi</sup>. 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](#)<sup>vii</sup>
2. Click "Search by school" and input the name of our school
3. Search for our course with the following join code: 441325 (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](#)<sup>viii</sup> OR [2 minute video walkthrough](#)<sup>ix</sup>.

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.

## 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 approval from me.

## 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.

## GEOLOGIC EXHIBITION ORGANIZATION (GEO)

GEO, the student organization of all interested in geology (not just majors/minors), meets almost every Wednesday @ Noon. GEO is a student chapter of the American Association of Petroleum Geologists ([AAPG](#)<sup>x</sup>) and Sigma Gamma Epsilon, the national honor society of the earth sciences.

## YOU CAN MAJOR OR MINOR IN GEOLOGY @ ASU!

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

## 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](#)<sup>xiii</sup>
- [Angelo State University Catalog](#)<sup>xiv</sup>

## ACADEMIC INTEGRITY

As members of this university community, we are all expected to maintain honesty and integrity in our work. If a student is found guilty of any form of dishonesty in academic work they may be subject to disciplinary action and possible expulsion from ASU.

To get more information about how to maintain honesty in your work see the university's [Statement of Academic Integrity](#).<sup>xv</sup> If you are still unsure or have any questions, please come see me.

### **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.

If you believe that you are entitled to reasonable accommodation, you may do so by contacting the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at [ADA@angelo.edu](mailto:ADA@angelo.edu). For more information about the application process and requirements, visit the [Student Disability Services website](#).<sup>xvi</sup> 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](mailto: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 me 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](#).<sup>xvii</sup> for more information.

### **PLAGIARISM**

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. Copying material word-for-word into a piece of writing without quotation marks and the source of the quotation is plagiarism.

The vast majority of students that have plagiarized, didn't intend to. Instead, they were uninformed or misinformed about what constitutes plagiarism. To avoid a mistakes like this check out the [ASU Writing Center](#).<sup>xviii</sup> or ASU's [Academic Integrity policy](#).<sup>xix</sup> in the Student Handbook.

The best way to avoid plagiarism is to paraphrase (re-write) information in your own words. The way to paraphrase is by taking bulleted notes while doing your research and then using only those notes during the writing process. You can find other tips by searching the internet or talking to me.

### **STUDENT ABSENCE FOR OBSERVANCE OF RELIGIOUS HOLY DAYS**

If you intend to observe a religious holy day that will take you away from class please let me know, preferable before the absence. This allows us to come up with a plan to complete the missed work. See ASU Operating Policy 10.19 Student Absence for [Observance of Religious Holy Day](#)<sup>xx</sup> 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](#)<sup>xxi</sup>

Face to Face: Mayer Administration Building, Room 210

Phone: 325-942-2022

Email: [michelle.miller@angelo.edu](mailto: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](#)<sup>xxii</sup> (325-942-2371), the [24-Hour Crisis Helpline](#)<sup>xxiii</sup> (325-486-6345), or the [University Health Clinic](#)<sup>xxiv</sup> (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](#)<sup>xxv</sup>.

### **INFORMATION ABOUT COVID-19**

Please refer to ASU's [COVID-19 \(Coronavirus\) Updates](#)<sup>xxvi</sup> web page for current information about campus guidelines and safety standards as they relate to the COVID-19 pandemic.

### **MODIFICATIONS TO THE SYLLABUS**

Despite my best planning, sometimes things don't go according to plan. In those cases I may need to modify this syllabus, including grade evaluation and course schedule. If it becomes necessary for me to modify the syllabus in any way I will post an updated version on our course in Blackboard and post an announcement to advise of the changes.

- 
- i <https://tophat.com/>
- ii <https://www.angelo.edu/current-students/freshman-college/academic-tutoring.php>
- iii <https://www.angelo.edu/administrative-support/information-technology/>
- iv <https://angelo.blackboard.edu/>
- v <https://www.angelo.edu/administrative-support/information-technology/>
- vi <https://app.tophat.com/e/441325>
- vii <https://app.tophat.com/register/student>
- viii <https://bit.ly/31TGMIw>
- ix <https://youtu.be/NNmVJWGu4iA>
- x <http://www.aapg.org>
- xi [http://www.angelo.edu/dept/physics/Geosciences/geoscience\\_careers.php](http://www.angelo.edu/dept/physics/Geosciences/geoscience_careers.php)
- xii <https://www.angelo.edu/academics/programs/geoscience/>
- 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/current-students/writing-center/academic\\_honesty.php](https://www.angelo.edu/current-students/writing-center/academic_honesty.php)
- xix <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=96>
- xx <https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of>
- xxi <https://www.angelo.edu/incident-form>
- xxii <https://www.angelo.edu/current-students/counseling-services/>
- xxiii <https://www.angelo.edu/current-students/counseling-services/crisishelpline.php>
- xxiv <https://www.angelo.edu/current-students/health-clinic/>
- xxv <https://www.angelo.edu/title-ix>
- xxvi <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	<b>No Class January 17</b> January 18-23	Welcome Module	Welcome Module			
2	January 24-30	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	January 31 – February 6	Module I: Earth Structure and Materials	Minerals	Minerals Lab Materials	Pre-lab reading quiz: Minerals	Lab: Minerals
4	February 7-13	Module I: Earth Structure and Materials	Igneous Rocks	Igneous Rocks Lab Materials	Pre-lab reading quiz: Igneous Rocks	Lab: Igneous Rocks
5	February 14-20	Module I: Earth Structure and Materials	Sedimentary Rocks	Sedimentary Rocks Lab Materials	Pre-lab reading quiz: Sedimentary Rocks	Lab: Sedimentary Rocks
6	February 21-27	Module I: Earth Structure and Materials	Metamorphic Rocks	Metamorphic Rocks Lab Materials	Pre-lab reading quiz: Metamorphic Rocks	Lab: Metamorphic Rocks
7	February 28 – March 6	Module II: Earth Hazards and Geologic Time	Mountain Building and Geologic Time			
8	March 7-13	Module II: Earth Hazards and Geologic Time	Volcanoes and Earthquakes	Websites and video	Pre-lab reading quiz: Volcanic Hazards	Volcanic Hazards
9	March 14-20	<b>SPRING BREAK</b>				
10	March 21-27	Module III: Energy Resources and the Hydrologic Cycle	Energy Resources			
11	March 28 – April 3	Module III: Energy Resources and the Hydrologic Cycle	Streams and Groundwater			
12	April 4-10	Module III: Energy Resources and the Hydrologic Cycle	Oceans	Website	Pre-lab reading quiz: Investigating Sea Level	Lab: Investigating Sea Level
13	April 11-17	Module IV: Weather and Climate	Heating the Atmosphere			
14	April 18-24	Module IV: Weather and Climate	Weather Phenomena			
15	April 25 – May 1	Module IV: Weather and Climate	Climate	Website	Pre-lab reading quiz: Using Climate Models	Lab: Using Climate Models
16	May 2-8	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