

GEOL 1403 Lab Fall 2026

Instructor: Kayla Gibbs

Office Hours: Online via zoom Monday and Wednesday 10-12pm, and by appt.

Email: Kayla.Gibbs@tamuc.edu

Class: GEOL-1403-1LW Physical Geology LAB

Materials: All labs are completed in Mastering Geology course. No manual required.

GEOL 1403 - Physical Geology

Hours: 4

A systematic study of minerals, rocks, and the processes which shape and modify the surface features of the earth. Plate tectonics, volcanoes, earthquakes, and the practical aspects of geology are studied as they relate to man's adjustments to the geologic environment.

Prerequisites: None

Student Learning Objectives:

Upon successful completion of this course, students will:

- Describe how the scientific method has led to our current understanding of Earth's structure and processes.
- Interpret the origin and distribution of minerals, rocks and geologic resources.
- Describe the theory of plate tectonics and its relationship to the formation and distribution of Earth's crustal features.
- Quantify the rates of physical and chemical processes acting on Earth and how these processes fit into the context of geologic time.
- Communicate how surface processes are driven by interactions among Earth's systems (e.g., the geosphere, hydrosphere, biosphere, and atmosphere).
- Identify and describe the internal structure and dynamics of Earth.
- Describe the interaction of humans with Earth (e.g., resource development or hazard assessment).

EDUCATIONAL OBJECTIVES:

1. To understand and apply method and appropriate technology to the study of the natural sciences.
2. To recognize scientific and quantitative methods and the differences between these approaches and the other methods of inquiry and to communicate findings, analyses and interpretation both orally and in writing.
3. To identify and recognize the differences among competing scientific theories.
4. To demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values and public policies.

5. To demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to modern culture.

INTELLECTUAL COMPETENCIES:

1. **READING**—the ability to analyze and interpret a variety of printed materials—books, documents and articles.
2. **WRITING**—the ability to produce clear, correct and coherent prose adapted to purpose occasion and audience.
3. **LISTENING**—analyze and interpret various forms of spoken communication, possess sufficient literacy skills of writing, reading.
4. **CRITICAL THINKING**—think and analyze at a critical level.
5. **COMPUTER LITERACY**—understand our technological society, use computer-based technology in communication

Student Behavior

As adults, I expect everyone to practice common courtesy in this class. I will always communicate with you respectfully, and I ask for the same in return. Remember, even though an email isn't face-to-face, it's still important to use professional and respectful language when you reach out.

Course Outline

This course will cover a variety of exciting topics, including Earth's interior, rocks and minerals, geologic structures, earthquakes, volcanoes, and the effects of wind and water—just to name a few!

- **Exams and Mastering Homework:** Due every 3–4 weeks, as shown on the course calendar. Regular submissions are due by **Sunday at 11:59 p.m.** unless otherwise noted in the calendar.
- **Labs and DSM Assignments:** Due weekly by **Sunday at 11:59 p.m.** Plan to spend **2–3 hours** on each lab and DSM assignment.

Week Assignments due Sundays by 11:59pm	Lecture topic	Lab
Aug. 20-Aug. 30	Intro to Mastering due 8/30 Ch. 1 Introduction to Geology	Intro to DSM tutorial Lab 1: Matter & Minerals & DSM
Aug. 31-Sept. 6	Ch. 3 Matter & Minerals Census Date: Sept. 4	

Sept. 7-13	Ch. 4 Igneous Rocks & Intrusive Activity	Lab 2: Igneous Rocks & DSM
Sept. 14-20	Ch. 7 Sedimentary Rocks	Lab 3: Sedimentary Rocks & DSM
Sept. 21-27	Ch. 8 Metamorphism & Metamorphic Rocks Mastering Homework 1-5 and Exam 1 (Ch. 1, 3, 4, 7, 8) due 9/27	Lab 4: Metamorphic Rocks & DSM
Sept. 28-Oct. 4	Ch. 2 Plate Tectonics	Lab 5: Plate Tectonics & DSM
Oct. 5-11	Ch. 5 Volcanoes and Volcanism	Lab 6: Volcanoes & DSM
Oct. 12-18	Ch. 9 Earthquakes and Earth's Interior	Lab 7: Earthquakes & DSM
Oct. 19-25	Ch. 10 Origin and Evolution of Ocean Floor	Lab 8: Seafloor & DSM
Oct. 26-Nov. 1	Ch. 11 Crustal Deformation and Mountain Building Drop Deadline (Q grade): October 29	Lab 9: Mountain Formation & DSM
Nov. 2-8	Ch. 13 Running Water Mastering Homework 6-10 and Exam 2 (Ch. 2, 5, 9, 10, 11) due 11/8	Lab 10: Running Water & DSM
Nov. 9-15	Ch. 14 Groundwater	Lab 11: Groundwater & DSM
Nov. 16-22	Ch. 15 Glaciers and Glaciation Withdrawal Deadline: November 17	Lab 12: Glaciers & DSM
Nov. 23-Dec. 11	Ch. 16 Deserts and Wind	Lab 13: Deserts & DSM
Thanksgiving Break: Nov. 25-27	Ch. 20 Global Climate Change Mastering Homework 11-15 and Exam 3 (Ch. 13, 14, 15, 16, 20) due 12/11	
Finals: Dec. 5-11		

The instructor reserves the right to change this syllabus at any time. If changes are made, you will be alerted in a timely manner.

Grades and Grading

Your grade in this class will reflect the work you put in. If you're aiming for an **A**, you'll need to consistently produce **A-level work**.

Geology, like any science, has its own unique language and concepts. If this is your first geology class, expect to spend time studying and practicing to become comfortable with the terms and ideas.

To set yourself up for success:

- **Stay prepared** by reading ahead.
- **Take thorough notes** during lectures and labs.

- **Complete all assignments** on time.
- **Ask questions** whenever something is unclear—we're here to help you learn.

With steady effort and engagement, you'll build the foundation you need to do well in this course.

1403 Lab Grading

Labs (1 credit hr) 13 Labs, equally weighted. 70% of final grade.

Dynamic Study Modules (DSM) 13, equally weighted. 30% of final grade.

100-90 – A

80-89 – B

70-79 – C

60-69 – D

<60 – F

Extra credit:

No extra credit will be offered in the course.

Make-ups:

There are no make-ups in this class. Everything will be open for you so you should do work early if you are going to be away. There are extenuating circumstances, we will discuss this as need arises. Do not expect late work to be accepted.

Cheating:

Cheating will not be tolerated. In the case of cheating the offenders will be given a zero on the assignment. The incident will be reported and the department will conduct further investigations.

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty

13.99.99.R0.10 Graduate Student Academic Dishonesty

Drop Date: October 29 is the deadline to drop this class with a Q grade. The withdrawal deadline is November 17. I will not drop you. If you simply stop participating, you will probably end the class with an F.

Disabilities — Students with Disabilities: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact: Office of Student Disability Resources and Services

Texas A&M University-Commerce

Gee Library, Room 132

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

StudentDisabilityServices@tamuc.edu

Behavior — All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment.” (See Student’s Guide Handbook, Policies and Procedures, Conduct)

All students are expected to conduct themselves with a proper demeanor and to behave as socially conscience adults. Actions, which disrupt class and the process of instruction, are not acceptable. The instructor has the responsibility to maintain the learning environment free of disruption and actions not to conformance with good citizenship and recognition of the rights of others.

Plagiarism — Plagiarism is a criminal activity. You must cite all sources of information. Unreferenced copying of material, whether parts of sentences, whole sentences, paragraphs, or entire articles can result in a score of zero for your assignment and may result in further disciplinary action.

Early Intervention for First Year Students — Early intervention for freshmen is designed to communicate the University’s interest in their success and a willingness to participate fully to help students accomplish their academic objectives. The university through faculty advisors and mentors will assist students who may be experiencing difficulty to focus on improvement and course completion. This process will allow students to be knowledgeable about their academic progress early in the semester and will provide faculty and staff with useful data for assisting students and enhancing retention. Grade reports will be mailed by the end of the sixth week of the semester

Students with Disabilities:

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Gee Library

Phone (903) 886-5150 or (903) 886-5835 StudentDisabilityServices@tamuc.edu

Coronavirus Protection Measures

A&M-Commerce requires the use of face-coverings in all instructional and research classrooms/laboratories. Exceptions may be made by faculty where warranted. Faculty have management over their classrooms. Students not using face-coverings can be required to leave class. Repetitive refusal to comply can be reported to the Office of Students’ Rights and Responsibilities as a violation of the student Code of Conduct.

Students should not attend class when ill or after exposure to anyone with a communicable illness. Communicate such instances directly with your instructor. Faculty will work to support the student getting access to missed content or completing missed assignments.