

## GEOL 0800: GEOLOGY

### SYLLABUS FOR FALL 2025 (2261)

**General Information:**

Lecture schedule: Tuesdays and Thursdays 11:00-11:50 AM

Recitation schedule: One 50-minute recitation per week

Lecture location: 157 Benedum Hall

Recitation location: 113 SRCC (Space Research Coordination Center)

Class web site: Registered students may access the course website through Canvas.

**Instructor: Professor Brian Stewart**

Office: 413 SRCC

Email: [bstewart@pitt.edu](mailto:bstewart@pitt.edu)

Website: <https://www.geology.pitt.edu/person/brian-stewart>

Student meeting times (office hours): Tuesdays 1:00-2:30 PM and Wednesdays 1:00-2:00 PM

**Text (required):** Marshak, S. (2022) *Essentials of Geology*, 7th ed., W.W. Norton & Co.

Paperback ISBN 9780393882728; e-book ISBN 9780393883015 (either acceptable)

Available at the Pitt Bookstore or wherever fine books are sold. Copies are also available on reserve at Hillman Library and the Science and Engineering Library (Benedum Hall).

**Course Overview:**

This course will provide an overview of our current understanding of the earth and the geologic forces that drive its evolution. You will learn about the processes that have shaped our planet over the past 4.6 billion years, including volcanism, plate tectonics, rock-water-air interactions, surface processes, climate, and the mutual impacts of Earth and life (including humankind).

**Grading:**

The course has three important components, all of which you will need to complete in order to receive a passing grade:

- (1) *Lectures*: The instructor will discuss selected topics at the level of detail necessary for understanding of basic geologic concepts. Occasional videos will be used to introduce or expand on certain content areas. The questions on three lecture exams will be based primarily on material and concepts provided in the lectures.
- (2) *Reading*: Because of the amount of material to be covered, extensive and careful reading of the textbook is required. Reading study questions are provided at the end of each chapter; while answers to these reading questions do not need to be turned in, there will be a short (20 questions, multiple choice and true/false) online quiz based on the reading questions on most Fridays.
- (3) *Recitations*: These provide an opportunity for hands-on experience with geologic material and a smaller working group for individualized attention from a TA (Teaching Assistant, a graduate student currently earning an MS or Ph.D. in geology). There will be an exercise to complete during each recitation period, and you will have the opportunity to receive assistance from the TA.

The three lecture exams will be in-person, closed-book exams, administered during the regular lecture period, and you will need to complete a total of nine online reading quizzes and eight recitation exercises.

The following is the overall grading breakdown, out of 1,000 points possible for the course:

Lecture Exam 1 (Thursday 9/25):	200 pts. (20%)
Lecture Exam 2 (Tuesday 10/28):	200 pts. (20%)
Lecture Exam 3 (Thursday 12/4):	200 pts. (20%)
Online Reading Quizzes (8 @ 20 points each):	160 pts. (16%)
Recitation Exercises (8 @ 30 points each):	240 pts. (24%)

While nine Reading Quizzes will be administered, you will be able to drop your lowest score, so only eight of them will count toward your grade.

It will *not* be possible to make up missed exams, recitation exercises, or quizzes, unless you have a note from (1) a doctor or (2) a dean, and/or (3) clearance from Professor Stewart.

The course grading scheme will be as follows:

A+	970-1,000 pts.	(97-100%)
A	930-969 pts.	(93-96.9%)
A-	900-929 pts.	(90-92.9%)
B+	870-899 pts.	(87-89.9%)
B	830-869 pts.	(83-86.9%)
B-	800-829 pts.	(80-82.9%)
C+	770-799 pts.	(77-79.9%)
C	730-769 pts.	(73-76.9%)
C-	700-729 pts.	(70-72.9%)
D+	670-699 pts.	(67-69.9%)
D	630-669 pts.	(63-66.9%)
D-	600-629 pts.	(60-62.9%)
F:	< 600 pts	(< 60%)

### Academic Integrity:

Students in this course will be expected to comply with the University of Pittsburgh's Policy on Academic Integrity (<https://www.provost.pitt.edu/academic-integrity-guidelines>). Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but is not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries and programmable calculators.

To learn more about Academic Integrity, visit the Academic Integrity Guide (<https://pitt.libguides.com/academicintegrity/>) for an overview of the topic. For hands-on practice, complete the Academic Integrity Modules (<https://pitt.libguides.com/academicintegrity/plagiarism>).

**Disability Services:**

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services (DRS) (<https://www.wellbeing.pitt.edu/disability-access/disability-resources-services>), 140 William Pitt Union, (412) 648-7890, [drsrecep@pitt.edu](mailto:drsrecep@pitt.edu), (412) 228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course.

**E-mail Communication Policy:**

Each student is issued a University e-mail address (username@pitt.edu) upon admittance. This e-mail address may be used by the University of Pittsburgh for official communication with students. Students are expected to read e-mail sent to this account on a regular basis. Failure to read and react to university communications in a timely manner does not absolve the student from knowing and complying with the content of the communications. The University provides an e-mail forwarding service that allows students to read their e-mail via other service providers (e.g., Hotmail, AOL, Yahoo). Students that choose to forward their e-mail from their pitt.edu address to another address do so at their own risk. If e-mail is lost as a result of forwarding, it does not absolve the student from responding to official communications sent to their pitt.edu e-mail address.

**Statement on Classroom Recording:**

To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the student's own private use.

**Statement on Diversity:**

Students, faculty, and guests represent diverse perspectives, backgrounds, and experiences which enrich our research and educational environment. Individuals of all races, colors, ancestries, genders, marital status, familial status, ages, backgrounds, beliefs, ethnicities, gender identities and expressions, national origins, religious or political affiliations, sexual orientations, abilities, and other visible and nonvisible differences are welcomed in this class. We urge all to be mindful in this classroom and to feel responsible for creating a space that is intellectually rigorous and is a respectful, welcoming, and inclusive environment for everyone. No demeaning or discriminatory behavior will be permitted. If you feel uncomfortable, please feel free to approach me during or after class to discuss the situation.

In addition, if any of our class meetings conflict with your religious events, please let me know so arrangements can be made.

**The Pitt Concern Connection:**

The University of Pittsburgh strives to build and maintain a positive and healthy working, learning, and living environment. Reporting concerns and asking questions can minimize the potential negative impact of inappropriate conduct on the University and our employees, faculty, and students. Reporting can help improve our culture and operations by identifying issues that require attention.

The Pitt Concern Connection is a dedicated reporting system where University members can elevate irregular or troublesome workplace, campus, and other issues so that they can be reviewed, addressed, and resolved. Report an issue or ask a question online, by telephone, or via text message.

The Pitt Concern Connection is not an emergency service. Immediate, life-threatening safety concerns should be reported to 911 or by contacting your local University police or security department.

### **Your Well-being Matters**

College can be an exciting and challenging time for students. Taking time to maintain your well-being and seek appropriate support can help you achieve your goals and lead a fulfilling life. It can be helpful to remember that we all benefit from assistance and guidance at times, and there are many resources available to support your well-being while you are at Pitt. You are encouraged to visit Thrive@Pitt (<https://www.thrive.pitt.edu/>) to learn more about well-being and the many campus resources available to help you thrive.

If you or anyone you know experiences overwhelming academic stress, persistent difficult feelings and/or challenging life events, you are strongly encouraged to seek support. In addition to reaching out to friends and loved ones, consider connecting with a faculty member you trust for assistance connecting to helpful resources.

The University Counseling Center (<https://www.studentaffairs.pitt.edu/counseling>) is also here for you. You can call 412-648-7930 at any time to connect with a clinician. If you or someone you know is feeling suicidal, please call the University Counseling Center at any time at 412-648-7930. You can also contact Resolve Crisis Network at 888-796-8226. If the situation is life threatening, call Pitt Police at 412-624-2121 or dial 911.

# GEOL 0800: Geology

## Fall 2025 Schedule

Week #	Date	Lecture Topic	Reading Chapter(s)	Recitation Topic	Reading for Friday Quiz
1	T Aug 26	Course Structure, Requirements & Overview	--	No recitations or quiz	
	Th Aug 28	Origin and Structure of the Earth and Solar System	Prelude, Ch. 1		
2	T Sep 2	Evidence that the Continents Have Moved	Ch. 2	No recitations	8/28, 9/2, 9/4
	Th Sep 4	Creation and Destruction of Tectonic Plates	Ch. 2		
3	T Sep 9	Atoms, Minerals and Rocks	Ch. 3, Interlude A	Plate Tectonics	9/9, 9/11
	Th Sep 11	Formation and Evolution of Magmas	Ch. 4		
4	T Sep 16	Magma Crystallization Underground and on the Surface	Ch. 5	Minerals	9/16, 9/18
	Th Sep 18	Volcanic Eruptions	Ch. 5		
5	T Sep 23	Weathering and the Formation of Soils	Interlude B	No recitations or quiz (Lecture Exam)	
	Th Sep 25	<b>Lecture Exam 1</b> - covers lectures 28-Aug to 23-Sep	--		
6	T Sep 30	Sedimentary Transport and Deposition	Ch. 6	Volcanoes	9/23, 9/30, 10/2
	Th Oct 2	Metamorphism and the Rock Cycle	Ch. 7, Interlude C		
7	T Oct 7	Earthquakes and Seismic Waves	Ch. 8, Interlude D	No recitations or quiz (Student Break on 10/10)	
	Th Oct 9	Earthquakes and Human Society	Ch. 8		
8	T Oct 14	Geologic Deformation and Mountain Building	Ch. 9	Rocks	10/7, 10/9, 10/14, 10/16
	Th Oct 16	Geologic Time, Radiometric Dating and the Age of the Earth	Ch. 10		
9	T Oct 21	Origin and Evolution of Earth's Earliest Life	Interlude E, Ch. 11	Earthquakes & Tsunamis	10/21, 10/23
	Th Oct 23	Dinosaurs and Extinctions	Ch. 11		
10	T Oct 28	<b>Lecture Exam 2</b> - covers lectures 30-Sep to 23-Oct	--	No recitations or quiz (Lecture Exam)	
	Th Oct 30	The Phanerozoic Evolutionary Explosion	Ch. 11		
11	T Nov 4	Earth Surface Processes and Landslides	Interlude F, Ch. 13	Geologic Histories	10/30, 11/4, 11/6
	Th Nov 6	Water at the Surface and Underground	Ch. 14, 16		
12	T Nov 11	Geologic Resources: Minerals	Ch. 12	The Fossil Record	11/11, 11/13
	Th Nov 13	Geologic Resources: Energy	Ch. 12		
13	T Nov 18	Fire and Ice: Deserts and Glaciers	Ch. 17, 18	Climate Change	11/18, 11/20
	Th Nov 20	Ice Ages and Climate Change on Geologic Timescales	Ch. 18, 19		
	T Nov 25	No lectures, recitations or quiz (Thanksgiving Recess)			
	Th Nov 27				
14	T Dec 2	Anthropogenic Global Warming	Ch. 19	No recitations or quiz (Lecture Exam)	
	Th Dec 4	<b>Lecture Exam 3</b> - covers lectures 30-Oct to 2-Dec	--		