



GEOLOGY 1403.101HY
Physical Geology
Summer 2022
Lecture: Online
Lab: MTWTH 2:30 – 4:45 PM

Instructor Information: Dr. Keena Kareem, kkareem@com.edu

Student hours and location: T 1:15 – 2:15 pm in person, TH 9:00 – 10:00 pm online (Teams)

Location: STEAM Building, Room 307

Required Textbook/Materials:

1. **Lecture Textbook: Essentials of Geology**, 13th Edition by Lugens and Tarbuck, with Modified Mastering Geology e-text access card package by Pearson, ISBN 978-0-321-94773-4. If you buy a used book or borrow a book, you will need to purchase the access code to Mastering Geology separately.
 - All registered students in this program will have full access to an e-book through Blackboard by the first day of class. No additional steps (registration, payments, etc.) will be required. You will simply log in to your Blackboard course on the first day and will be able to start reading.
 - You will be billed for the Mastering/e-book if you are still registered on the census date. If you withdraw from the course before then, you will not be charged.
 - If you want a print book, you can purchase a loose-leaf text, of the current edition, from the campus bookstore at a reduced price.
 - The Modified Mastering Geology course and the e-book that you have access to will be in the current edition, so I personally wouldn't recommend that you buy previous editions of this text. This may cause a disconnect in your learning experience (i.e. chapters/sections that are added or removed, different examples and problems, etc.).
2. **Lab Manual: Laboratory Manual in Physical Geology**, 11th Edition by AGI/Bush, ISBN 9780321944528

Course Description: Introduction to the study of the materials and processes that have modified and shaped the surface and interior of Earth over time. These processes are described by theories based on experimental data and geologic data gathered from field observations.

Course requirements: The course consists of a textbook and in-class labs. Your assessment of the material will be through exams and lab practicals. The following contains more details about each:

NOTE: All work must be submitted in Blackboard and will not be accepted by email. All work must be in the original format (e.g. Word Doc) no PDF will be accepted. No work is accepted in the MAC/IOS format. Remember the college provides every student with a Microsoft 365 Office account, so there is no reason to use the MAC/IOS format. If this causes an undue hardship the instructor may waive this rule at the sole discretion of the instructor. The following contains more details about each of the exams and lab assignments

1. **Lecture Exams:** Exams cover lecture material, readings, and discussions covered during lecture. There are four exams worth 100 points each (three exams and one Final Exam, which is 50% comprehensive). The format for the exams is generally multiple choice, some short answer and essay question(s). I will post general study guides at least one class period prior to the exam. Since the lecture component of the class is online, the exams will all be online. The exams are due the day they are listed on the calendar (page 7) at 11:59 pm.
2. **Lab Practical:** A lab practical is a hands-on exam that covers only what we have worked on in the lab. Although, studying lecture material will help you in the lab as there is an overlap of the material. There are 4 lab practicals, worth 100 points each. The assessments will test your memorization and empirical skills that you learn in the lab. If you are late to the exams, and someone has completed the exam you will not be able to take the test. Also, you will not have extra time to take the exam if you are late, so please arrive on time.
3. **Lab Assignments:** The Lab Assignments are a chance for you to gain a practical understanding of the lecture material. They will more or less align with the lecture concepts taught. The set of Lab Assignments done during class will be due before each Lab Practical Exam.
4. **Mastering Geology Exercises:** There will be 10 Mastering Geology Exercises through the publisher's website. These assignments will follow the lecture material. The Mastering exercises are due Sundays 11:59 pm. For example, the Mastering exercises for Week 1 are due Sunday June 12, 11:59 pm.
5. **Discussion Boards:** There will be 4 Discussion Board assignments throughout the semester (on Blackboard), worth 5 points each. Each Discussion will have its own

Topic. Try to post your initial Discussion Post by Thursday, 11:59 pm of the week these are assigned. You will be required to respond to one of your classmates no later than the following Sunday at 11:59 pm. Therefore Sundays 11:59 pm, will be the final due date and time for these assignments.

6. **Group Exercise:** There will be a group exercise during the semester worth 100 points. This will assess your ability to work as a team. Students will work in a team to study earthquake events and locations to better understand the shaping of the continents and plate tectonics.

Determination of Course Grade/Detailed Grading Formula:

Items	Points	Totals
Lecture Exams (4)	100 points each	400 points
Mastering Geology (10)	100 points each	100 points
Lab Practicals (4)	75 points each	300 points
Group Exercise (1)	100 points each	100 points
Discussion Boards (4)	5 points each	20 points
Lab Assignments (4)	20 points each	80 points
		1000 total points

Grading Scale:

A	900 - 1000
B	800 - 899
C	700 - 799
D	600 - 699
F	≤599

Late Work, Make-Up, and Extra-Credit Policy:

If you miss a lecture exam or a lab practical due to a legitimate reason (illness, hospitalization, or emergency) please email me before the exam. I will provide a make-up exam if you remind me when you return to class. You will have one week from the original date to complete the make-up. There is no make-up for Lab Practical 4 or the Final Exam. If your illness or emergency entails missing more than one week of classes, then we will need to discuss a plan to catch you up on all the work you miss or other arrangements

No special consideration is given for planned absences, so make arrangements to get the work done. These planned absences will be unexcused.

There will be several extra credit opportunities offered throughout the semester. Announcements will be made for each of these. This may include bonus questions on the exams, professor evaluations (anonymous) at the end of the semester and/or outside activities that are related to our class objectives.

Electronic submittals will not be accepted for Lab Exercises and the Group Exercise, so submit paper copies only.

Attendance Policy:

You are expected to attend lectures and labs to pass this class. In fact, you will get more out of the class if you are present for every meeting, on time. I understand that you may miss some classes due to unforeseen circumstances. I expect you to notify me of your absence, by email. With notification, I will consider the absence to be “excused” and will not count it against you. The college policy, and therefore, my policy, considers 2 unexcused absences during summer classes to be excessive because you are missing too much material. I will take attendance during lecture and lab and submit these records to college administrators at the end of the semester.

Attendance is taken during lecture and lab and will be submitted to college administrators at the end of the semester. I do not drop students from the course for being absent. If you drop the course, it will be your responsibility to go to admissions and withdraw from the course to avoid the grade of “F”. I make use of the college “Early Warning Program” (see below) after two absences and again if absences continue.

Tardiness:

Arrive to class on time to make sure you get the most out of lab time. If you are late, you will be responsible for making up what you miss and working with other students in the class to get the information they learned or are working on in lecture or lab.

Communicating with your instructor: ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means. (Faculty may add additional statement requiring monitoring and communication expectations via Blackboard or other LMS)

Student Learner Outcome	Maps to Core Objective	Assessed via this Assignment
1. Describe how the scientific method has led to our current understanding of Earth's structure and processes	Communications Skills	Lecture Exam 1
2. Interpret the origin and distribution of minerals, rocks and geologic resources	Critical Thinking Skills	Lab Practical 1
3. Describe the theory of plate tectonics and its relationship to the formation and distribution of Earth's crustal features.	Communication Skills	Lecture Exam 2
4. Quantify the rates of physical and chemical processes acting on Earth and how these processes fit into the context of geologic time.	Critical Thinking Skills	Lecture Exam 1
5. Communicate how surface processes are driven by interactions among Earth's systems (e.g., the geosphere, hydrosphere, biosphere, and atmosphere).	Communication Skills	Lecture Exam 2
6. Identify and describe the internal structure and dynamics of Earth.	Communication Skills	Lecture Exam 3
7. Describe the interaction of humans with Earth (e.g., resource development or hazard assessment)	Communication Skills	Earthquake Hazards / Risks Exercise
8. Classify rocks and minerals based on chemical composition, physical properties, and origin.	Empirical and Quantitative Skills	Lab Practical 2
9. Apply knowledge of topographic maps to quantify geometrical aspects of topography	Critical Thinking Skills	Lab Practical 3
10. Identify landforms on maps, diagrams, and/or photographs and explain the processes that created them.	Critical Thinking Skills	Lab Practical 4
11. Differentiate the types of plate boundaries and their associated features on maps and profiles and explain the processes that occur at each type of boundary.	Critical Thinking Skills	Lecture Exam 2
12. Identify basic structural features on maps, block diagrams and cross sections and infer how they were created.	Critical Thinking Skills	Final Exam
13. Demonstrate the collection, analysis, and reporting of data.	Teamwork	Earthquake Exercise

Academic Dishonesty:

Any incident of academic dishonesty will be dealt with in accordance with college policy and the Student Handbook. Academic dishonesty – such as cheating on exams is an extremely serious offense and will result in a grade of zero on that exam and the student will be referred to the Office of Student Conduct for the appropriate disciplinary action.

Plagiarism:

Plagiarism is using someone else's words or ideas and claiming them as your own. Plagiarism is a very serious offense. Plagiarism includes paraphrasing someone else's words without giving a proper citation, copying directly from a website and pasting it into your paper, using someone else's words without quotation marks. Any assignment containing any plagiarized material will receive a grade of zero and the student will be referred to the Office of Student Conduct for the appropriate disciplinary action.

Examples of plagiarism include:

1. Submitting someone else's work with or without their knowledge
2. Paraphrasing or copying from a source (such as the internet, or books, or journals/magazines) without proper citation
3. Turning in a paper that was prepared through a website service
4. Copying materials straight from source text (even if it is from the internet), providing the appropriate citation (e.g. Works Cited or Bibliography) but leaving out quotation marks or in-text citation.

Link to resources about ways to avoid, or check for, plagiarism:

<http://en.writecheck.com/ways-to-avoid-plagiarism/>

<http://www.duplichecker.com/>

<http://www.plagiarismchecker.com/>

Technology Outage:

If a technology outage affects our lecture, lab, or any online homework, the due dates will be moved accordingly. If it is a longer-term outage, we will work around the outage and still cover the content we need in the course

Student Concerns: If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact Sheena Abernathy, Science and Engineering Chair, sabernathy@com.edu, 409/933-8330

Course outline:

Note - Subject to change with notice.

	2022 Dates	Lecture Topic (Chapter)	Lab Activities (Chapter)
Week 1	June 6	Intro to Geologic Principles (1), DB1	Lab Intro / Mineral Identification (3)
		Matter and Minerals (3)	Mineral Identification (3)
	June 7	Igneous Rocks (4)	Mineral Identification (3)
			Igneous Rocks (5)
	June 8	Volcanoes and Hazards (5)	Igneous Rocks (5)
		Weathering and Erosion (6)	Review Lab Practical 1, Lab Assignments Due
June 9	Sedimentary Rocks (7)	Lab Practical 1 - Minerals, Igneous	
	Review Lecture Exam 1	Sedimentary Rocks (6)	
Week 2	June 13	Lecture Exam 1*	Sedimentary Rocks (6)
		Metamorphic Rocks (8), DB2	Metamorphic Rocks (7)
	June 14	Plate Tectonics (2)	Metamorphic Rocks (7), Rock Cycle Model (4)
			Review Lab Practical 2, Lab Assignments Due
	June 15	Earthquakes (9)	Lab Practical 2 - Sed, Meta, Rock Cycle
			Plate Tectonics (2)
June 16	Origin & Evolution of Ocean Floor (10)	Plate Tectonics (2)	
	Review Lecture Exam 2	Earthquake Hazards / Risks (16) Group Ex.	
Week 3	June 20	Lecture Exam 2*	Earthquake Hazards / Risks (16) Group Ex.
		Crust Deformation (11), DB3	Topographic Maps (9)
	June 21	Crust Deformation (11)	Topographic Maps (9)
		Mass Wasting, Gravity (12)	Topographic Maps (9)
	June 22	Running Water (13)	Stream Processes (11) Stream Table
		Groundwater (14)	Review Lab Practical 3, Lab Assignments Due
June 23	Glaciers & Glaciation (15)	Lab Practical 3 - Plate Tectonics, Earthquakes, Topographic Maps	
	Review Lecture Exam 3	Groundwater (12)	
Week 4	June 27	Lecture Exam 3*	Deserts (14)
		Deserts and Wind (16), DB4	
	June 28	Shorelines (17)	Shorelines (15)
	June 29	Geologic Time (18)	Geologic Time (8)
June 30	Intro to Google Earth	Google Earth	
	Google Earth		
Week 5	July 4	Holiday - No Classes :)	
	July 5	Earth's Evolution (19)	Intro to Geologic Maps (10), Geologic Maps (10)
			Block diagrams, Faults & Folds, Review for Lab Practical, Lab Assignments Due
	July 6	Climate Change (20)	Lab Practical 4 - Shorelines, Geologic Time, Google Earth
		Review Final Exam	Geologic Maps, Block Diagrams, Google Earth, Shorelines
July 7	Final Exam*	No Lab	

*Lecture Exams and Final Exam are due on the day they are listed above, online at 11:59 pm.

Note: Lecture Mastering Assignments and DB (Discussion Boards) are due Sundays 11:59 pm, for assignments for previous week.

Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook. <https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf. *An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.* https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf

Academic Success & Support Services: College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact Holly Bankston at 409-933-8520 or hbankston@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center.

Counseling Statement: Any student needing counseling services is requested to please contact Holly Bankston in the student success center at 409-933-8520 or hbankston@com.edu. Counseling services are available on campus in the student center for free and students can also email counseling@com.edu to set up their appointment. Appointments are strongly encouraged; however, some concerns may be addressed on a walk-in basis.

Textbook Purchasing Statement: A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Withdrawal Policy: Students may withdraw from this course for any reason prior to the last eligible day for a "W" grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1st 5-week session is July 1. The last date to withdraw from the 10-week session is August 1. The last date to withdraw for the 2nd 5-week session is August 5.

F_N Grading: The F_N grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The F_N grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the F_N grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an F_N grade.

Early Alert Program: The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program, you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

Resources to Help with Stress:

If you are experiencing stress or anxiety about your daily living needs including food, housing or just feel you could benefit from free resources to help you through a difficult time, please click here <https://www.com.edu/community-resource-center/>. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork, by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at deanofstudents@com.edu or communityresources@com.edu.