



GEOL 1403.221HY
Physical Geology
Fall 2022

Instructor Information:

Dr. Uday Kara Ali, ukaraali@com.edu, Cell Phone: 832-908-2840

Student hours and location:

Hybrid: GEOL 1403.221HY Lecture (Online) Lab: Tuesday 6 pm –8:50 pm, STEM 307
Office hours: Tuesday 5 pm – 6 pm

Required Textbook/Materials:

Essentials of Geology, 13th Edition by Lugens and Tarbuck, ebook, ISBN 978-0-321-94773-4.

- All registered students in this program will have full access to an ebook through Brightspace/D2L by the first day of class. No additional steps (registration, payments, etc.) will be required. You will simply log in to your Brightspace/D2L course on the first day and will be able to start reading.
- The Modified Mastering Geology course and the ebook that you have access to will be in the current edition you can purchase it through the link in Mastering Geology., so I 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.).

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. Prerequisite: TSIA2 945-990 ELAR/CRC test AND 5 or higher on Essay OR 910-944 on CRC with 5-6 on Diagnostic Test + 5 or higher on Essay, or [IRW 0320](#) with a grade of "C" or better.”

Course requirements: The course consists of a textbook, homework, lab assignments, and an optional paper. Your assessment of the material will be through exams and lab practical.

NOTE: All work must be submitted in Brightspace/D2L 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
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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 the lecture. There are four exams worth 100 points each. The final exam is 40% comprehensive. The format for the exam is generally multiple choice, some hot spots, some ordering exercises, and fill in the blank. I will post study guides at least one week prior to the exam. You will have one week after receiving your grade to dispute any wrong answers.
2. **Lab Practicals:** A lab practical is a hands-on exam that covers only what we have worked on in the lab assignments. Although, studying class material will help you in the lab as there is an overlap of the material. There are four lab practicals worth 75 points each. The assessments will test your quantitative and empirical skills that you learn in the lab. You will have one week after receiving your grade to dispute any wrong answers.
3. **Lab Assignments:** The labs will all contain background material used to guide you through the assignments we complete. In addition to the background material, there are about 15 worksheets you will print out and bring to class to submit throughout the semester (about 25 points for each lab section) to be completed and turned in prior to each Lab Practical. Assignments will be accepted up to one week late at reduced points.
4. **Discussion Forums:** There will be 4 discussions. Each post, opened the first week of class and following each exam, will require one initial thread by each student with a minimum of two responses to other students. This is worth 25 points each or 100 possible points for the course.

Determination of Course Grade: The grade for this course consists of both a lecture and laboratory component. Students must earn a **70% or better in the laboratory** component to successfully pass the course. Earning less than 70% in the laboratory component will result in an F for the course regardless of the lecture grade. Passing the laboratory component and failing the lecture component will not guarantee a passing grade for the course. Deviations from this policy will be at the sole discretion of the instructor.

Detailed Grading Formula:

Lecture Exams (4)	100 Points each	400 Points
Mastering Homework (15)	~7 Points each	100 Points
Discussions (4)	25 Points each	100 Points
Lab Practicals: (4)	75 Points each	300 Points
Lab Assignments: (4)	~25 Points each	100 Points
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		1000 Total Points

Your grade can be calculated at any point in the semester by the following formula: Your total points to date, divided by total points possible, times 100 to get your current grade. For example: if we complete a possible of 175 points. If your total points to date are 150 points, then you have $150/175 \times 100 = 85.7$, or a B.

Grading Scale:

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

Grades throughout the semester are rounded. Any grade 0.1-0.4 is rounded down and any grade from 0.5-0.9 is rounded up. So, if you get a 72.4, your grade is a 72.0. If you get a 72.49, then your grade is a 73.0. Rounding is done at the sole discretion of the instructor. Final grades will be done using the same practice. Brightspace/D2L grading is provided as a courtesy to indicate your current grade during the semester. However, the final grade is taken from the instructor’s Excel gradebook.

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

No make-up exams are provided without documentation due to illness, hospitalization or a death in the immediate family. Decisions to allow make-up exams or work are at the sole discretion of the instructor. All make-up exams will be through the testing center.

The class calendar in the syllabus and on the class calendar in Brightspace/D2L have all the due dates for all homework, lab assignments, and exams. Any missed homework or lab assignments submitted late be given a point reduction. No late work or missed exams will be accepted the last week of class.

Extra credit will be offered for up to 30 points during the semester. Including 10 points of extra credit offered for filling out the Course Evaluation, usually due the last week of class.

Attendance Policy:

I will take attendance and submit these records to college administrators. After 3 unexcused absences in one week, your name will be submitted to the college “Early Alert” system, so an advisor can reach out to you to see how we can help.

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.

I will do my best to respond to your needs quickly and efficiently. I will answer all course emails within 24 hours during the week and within 48 hours on the weekends. I will use the Brightspace/D2L Announcement feature to send you reminders of assignments due and upcoming exams.

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.	Communication 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. Papers will not be accepted in MAC and PDF format. 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 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. PDF documents, inserted Latin characters or filled in spaces with white colored characters are considered an attempt to bypass the plagiarism checker and will be a zero!
5. 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/>

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 Department Chair at (409) 933-8330 or sabernathy@com.edu.

Course Outline: Hybrid: GEOL 1403.221HY

2022 Dates	Modules	Lecture Topic (Chapter)	Lab Activities	Due	Mastering Assignments	Due
Aug 23	Module 1	Intro to Geologic Principles (1)	Lab Introduction	Aug 30	Intro & Planet Earth (1)	Aug 30
Aug 30	Module 2	Plate Tectonics (2)	Introduction to Mineral ID	Sep 6	Plate Tectonics (2)	Sep 6
Sep 6	Module 3	Matter & Minerals (3)	Mineral Identification	Sep 13	Minerals (3)	Sep 13
Sep 13	Module 4	Igneous Rocks (4)	Introduction to Igneous Rocks	Sep 20	Igneous (4)	Sep 20
		Igneous Rocks (4)	Igneous Rocks			
Sep 20		Lecture Exam 1	Lab Practical Review			
Sep 27	Module 5	Weathering & Erosion (6)	Intro to Sedimentary Rocks	Oct 4	Weathering (6)	Oct 4
	Module 6	Sedimentary Rocks (7)	Sedimentary Rocks		Sedimentary (7)	
		Sedimentary Rocks (7)	Sedimentary Rocks			
	Module 7	Metamorphic Rocks (8)	Intro to Metamorphic Rocks		Metamorphic (8)	

Oct 4		Metamorphic Rocks (8)	Metamorphic Rocks	Oct 11		Oct 11
Oct 11		Lecture Exam 2				
Oct 18		Earth's Interior (19)	Intro to Latitude / Longitude	Oct 25	Earth's Evolution (19)	Oct 25
	Module 9	Earthquakes (9)	Earthquake EQCT Exercise		Earthquakes (9)	
	Module 10	Volcanoes & Hazards (5)	Label / Draw Topo Maps		Volcanoes (5)	
Oct 25	Module 11	Running Water (13)	Kingsland Topographic Map	Nov 1	Running Water (13)	Nov 1
		Running Water (13)	Hammetts Map/Stream Table			
Nov 1	Module 12	Groundwater (14)	Rio Grande Stream Exercise	Nov 8	Groundwater (14)	Nov 8
Nov 8		Lecture Exam 3 Review				
		Lecture Exam 3				
Nov 15	Module 13	Crustal Deformation (11)	Strike & Dip	Nov 22	Deformation (11)	Nov 22
		Crustal Deformation (11)	Geologic Blocks			
Nov 22	Module 14	Shorelines (17)	Relative Dating	Nov 29	Shorelines (17)	Nov 29
		Shorelines (17) "W" Day	Geologic Maps			
Nov 29	Module 15	Geologic Time (18)	Geologic Maps & Time	Dec 6	Geologic Time (18)	Dec 6
	Module 16	Climate Change (20)	Lab Practical 4 Review		Climate Change (20)	
Dec 6	Final Exam					

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 Michelle Brezina at 409-933-8124 or mvaldes1@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center.

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 8-week session is October 5. The last date to withdraw from the 16-week session is November 18. The last date to withdraw for the 2nd 8-week session is December 1.

FN Grading: The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The FN 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 FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN 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.