Geology 1405.101CL
Environmental Science
Spring 2022
Tuesday and Thursday: 9:30 am – 12:20 pm

Instructor Information:
Name: Keena Kareem, PhD
Email: kkareem@com.edu

Student hours and location:
Wednesdays 4:00 – 5:00 pm, Microsoft Teams
Or by appointment (please email)

Required Textbook/Materials:
Environmental Science and Sustainability: Daniel J. Sherman and David R. Montgomery
ISBN: 978-0-393-92389-6 (paperback)
ISBN: 978-0-393-69018-7 (e-book)
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Binder: For organizing your lecture and lab materials (handouts, worksheets, notes, etc).

Course Description: A survey of the forces, including humans, that shape our physical and biologic environment, and how they affect life on Earth. Introduction to the science and policy of global and regional environmental issues, including pollution, climate change, and sustainability of land, water, and energy resources.

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:

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 study guides at least one class period prior to the exam and we will do an in-class review. 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.

2. **Lab Practicals:** 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 3 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:** There will be 8 Lab Assignments due throughout the semester, worth 15 points each. Lab assignments do not always tie into the lecture work for the week, as they are scheduled surrounding weather, etc. for outside excursions. Lab assignments will flow through the class so that at the end of the semester, you will have all the required elements for the Final Project. Assignments:

Lab 1: Topographic Maps, Lab 2: Google Earth, Lab 3: Minerals, Lab 4: Rocks and Ores
Lab 5: Water Quality, Lab 6: Air Quality, Lab 7: Soils, Lab 8: Climate Change

4. **Quizzes:** There will be 9 Quizzes tied to the textbook and accompanying PowerPoints given once a week. These quizzes will be on the chapter(s) covered for the week. The format for these will be multiple choice. These quizzes will be given during class, in person.

5. **Discussion Boards:** There will be 6 Discussion Board assignments throughout the semester (on Blackboard), worth 10 points each. Each Discussion will have its own Topic. The initial individuals post will be due by Thursday at 11:59 pm of the week these will be assigned. You will be required to respond to a minimum of 2 of your classmates no later than the following Sunday at 11:59 pm.

6. **Projects**: There will be two projects. The Solar Project is worth 50 points. The last will be the Final Project, the Brownwood Project worth 50 points as well.

Determination of Course Grade/Detailed Grading Formula: (methods of evaluation to be employed to include a variety of means to evaluate student performance)

Item	Quantity	Points	Total
Lecture Exams	4	100	400
Lab Practicals	3	75	225
Lab Assignments	8	15	120
Quizzes	9	10	90
Discussion Boards	6	10	60
Solar Project	1	50	50
Brownwood Project	1	55	55
			1000

Grading Scale:

Grade	Points
A	895 - 1000
B	795 - 894
C	695 - 794
D	595 - 694
F	≤ 595

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 the first exam and the first lab practical, then there is a possible of 175 points. If your total points to date are 150 points, then you have 150/175 x 100 = 85.7, or a B.

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 3 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. There will be several extra credit opportunities offered throughout the semester. Announcements will be made for each of these.

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, consider 3 unexcused absences 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.

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.

Student Learner Outcome	**Maps to Core Objective**	**Assessed via this Assignment**
1. Recognize, describe, and quantitatively evaluate earth systems, including the land, water, sea, and atmosphere, and how these function as interconnected ecological systems.	Empirical and Quantitative Skills	Final Exam Final Project Quizzes
2. Assess environmental challenges facing humans caused by their interaction with the physical and biological environment (e.g., population growth, energy resources, food production, pollution, water and resource use).	Critical Thinking Skills	Brownwood and Google Earth Satellite Lab and Assignments
3. Acquire a scientific vocabulary and critical thinking skills related to environmental science.	Critical Thinking Skills	Lecture Exam 1 Quizzes
4. Assess the effectiveness and feasibility of environmental policy and its impact.	Critical Thinking Skills	Lecture Exam 3
5. Apply the scientific method to environmental investigation	Communication Skills	Project
6. Measure and observe aspects of the environment (e.g., air, water, soil) through sampling and sample analysis	Empirical and Quantitative Skills	Lab Practical 3 Quizzes
7. Develop an assessment plan for an environmental case study	Critical Thinking Skills	Discussions and Final Project
8. Demonstrate the collection, analysis, and reporting of data.	Communication Skills	Lab Practical 2 Quizzes
9. Demonstrate the ability to work effectively with others to support and accomplish a shared goal, while recognizing and respecting different viewpoints	Teamwork	Discussions and Final Project

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/

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

Course outline: This schedule is subject to change with notice

Week	Dates	Lecture Topic (Chapter), Items Due	Lab Activities and Assignments, Items Due
1	1/18	Chapter 1 – Environmental Science & Sustainability **DB 1**	Topographic Maps Solar Project Intro
	1/20	Chapter 2 – Ethics, Economics, and Policy, **Quiz** (Ch 1,2)	Topographic Maps, Solar Materials
2	1/25	Chapter 3 – Matter and Energy	Topographic Maps, **Lab Exercise 1 Due**, Google Earth, Solar Build
	1/27	Chapter 4 – Life: What Shapes Biodiversity, **Quiz** (Ch 3, 4)	Google Earth, Solar Build Test
3	2/1	Chapter 5 – Conservation, **DB 2**	Catch-up Day, **Lab Exercise 2 Due**, Solar Test
	2/3	**Exam 1: Chapters 1 thru 5**	**Lab Practical 1: Maps and Google Earth**
4	2/8	Chapter 6 – Human Population	Minerals, Solar Test
	2/10	Chapter 7 – Water: Uses and Quality, **Quiz** (Ch 6. 7)	Minerals, **Lab Exercise 3 Due**, Solar Test
5	2/15	Chapter 8 – Air: What are We Breathing?, **DB 3**	Rocks and Ores
	2/17	Chapter 9 – Land: How Does it Shape Us?, **Quiz** (Ch 8, 9)	Rocks and Ores, Solar Test
6	2/22	Catch-up Day	Rocks and Ores, **Lab Exercise 4 Due**
	2/24	**Exam 2: Chapters 6 thru 9**	**Solar Project Due,** Team Pres. Prep.
7	3/1	Chapter 10 – Systems and Cycles	**Solar Teams Presentations**
	3/3	Chapter 11 – Climate, **Quiz** (Chapter 10, 11)	Catch-up Day
8	3/8	Chapter 11 – Climate, **DB 4**	**Lab Practical 2: Minerals, Rocks, and Ores**
	3/10	Chapter 12 – Food: How Do We Feed Ourselves	Introduction to Brownwood Project
Spring Break Holiday 3/14 to 3/20 – No Classes			
9	3/22	Brownwood Project	Brownwood Project
	3/24	Chapter 13 – Fossil Fuels	Water Quality
10	3/29	Chapter 14 – Energy Alternatives, **DB 5,**	Water Quality, **Lab Exercise 5 Due**
	3/31	Chapter 14 – Energy Alternatives, **Quiz** (Ch 13, 14)	Air Quality
11	4/5	Chapter 15 – Waste	Air Quality, **Lab Exercise 6 Due**
	4/7	Chapter 15 – Waste, **Quiz** (Ch 15)	Soil Introduction
12	4/12	Catch up / Review	Soil ID
	4/14	**Exam 3: Chapters 10 thru 15**	Soil ID
Spring Holiday 4/15 to 4/17			
13	4/19	Chapter 16 – Urbanization: Why are Cities Growing?	Soil Testing
	4/21	Chapter 17 – Environmental Health & Justice, **Quiz** (Ch 16, 17)	Soil Testing, **Lab Exercise 7 Due**
14	4/26	Chapter 18 – Decision Making	Energy, **Brownwood Project Due**
	4/28	Chapter 19 – Groups and Organizations, **Quiz** (Ch 18, 19)	Climate Change
15	5/3	Chapter 20, **DB 6**	Catch-up Day, **Lab Exercise 8 Due**
	5/5	Catch-up Day	**Lab Practical 3: Water, Air, Soils, and Energy**
16	5/10	**Final Exam**	No Lab
	5/12	No Class	

*DB = Discussion Board

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 8-week session is March 2. The last date to withdraw from the 16-week session is April 25. The last date to withdraw for the 2nd 8-week session is May 4.

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.

COVID-19 Statement: All students, faculty, and staff are expected to familiarize themselves with materials and information contained on the College of the Mainland's Coronavirus Information site at www.com.edu/coronavirus. In compliance with Governor Abbott's May 18 Executive Order, face coverings/masks will no longer be required on COM campus. Protocols and college signage are being updated. We will no longer enforce any COM protocol that requires face coverings. We continue to encourage all members of the COM community to distance when possible, use hygiene measures, and get vaccinated to protect against COVID-19. Please visit com.edu/coronavirus for future updates.