Geology 202: Physical Geology II, Winter 2019

Instructor: Deron Carter Office: MH 110 Email: <u>carterd@linnbenton.edu</u> Office phone: 541-917-4745 Office hours: M 2:30-3, T 10-11, W 11:30-12 and 2:30-3, or by appointment CRN: 31601 Class meeting times: Monday and Wednesday 10-11:20, Friday 10-11:50 in MH 108

Welcome to Geology!

Introduces physical geology and fundamental geologic principles. Topics focus on surface processes related to mass wasting, erosion, streams, groundwater, coasts, deserts, glaciers and climate. Laboratory component highlights use of topographic maps and imagery. Suitable for science and non-science majors. Geology courses do not need to be taken in sequence.

Course Learning Outcomes

- Solve quantitative problems resulting from Earth surface processes.
- > Explain how Earth surface processes pose hazards to humans.
- > Describe landforms related Earth surface processes.
- Explain geological processes that produce landforms.

This course counts as a Physical Science Perspective at OSU and the Science/Math requirement for AAOT.

Learning Resources

Textbook: <u>The Changing Earth</u> by Monroe and Wicander (7^{nth} ed., older editions OK!), Cengage publishing G202 Course packet, by Deron Carter Class moodle site: elearning.linnbenton.edu

Grading (subject to change)

3 Exams (2 unit exams, plus comprehensive final) = 300 pts Labs = 80 pts Reading Quizzes = 50 pts Homework = 36 pts In-class reflections =16 pts Office visit = 5 pts Total = 487 pts

Grading Scale

 $\begin{array}{l} \mathsf{A} = 100\text{-}90\% \\ \mathsf{B} = 89\text{-}80\% \\ \mathsf{C} = 79\text{-}70\% \\ \mathsf{D} = 69\text{-}60\% \\ \mathsf{F} = 59\% \text{ and below} \end{array}$

Exams. There are two unit exams and one comprehensive final exam that covers the entire course. Exams consist of multiple-choice and short-answer questions. Once exams are returned to the class they cannot be made up. No early finals allowed before finals week.

Labs. Friday is lab day. Please bring you lab manual with you. Many labs have a short prelab that is due at the beginning of class, and late prelabs are not accepted. Two labs are outside, so please come prepared with raincoat and shoes that can get wet and muddy those days. One lab will be a field trip to view a landslide; limited college transportation is provided. Labs cannot be made up, but your lowest lab is dropped. **You must complete at least six labs to pass the class.**

Reading Quizzes. Much of class will be devoted to discussion and active learning. To make this work everyone must be prepared when coming to class, so it is important that everyone read the assigned readings

before we discuss them. I provide reading guides on our Moodle site to help you focus on what is important in the text. You may use your Reading Guides during the quiz and the quiz will cover just the information in the Reading Guides. You may not use your books or class notes on the quizzes. There are no make ups, but your lowest quiz is dropped. **Reading guides must be printed from Moodle and completed in your own hand writing.** Please see me if you have any questions or concerns.

Homework. On non-reading quiz days you will have a short homework assignment due at the beginning of class. These assignments give you an opportunity to interact with geology outside of class. These assignments are graded on a completion basis, and late assignments are not accepted, but I drop your lowest homework.

Reflections. On non-lab and exam days we will use the last five minutes of class for you to reflect on what you have learned, and address parts of the material that are still "muddy" to you. You will record these reflections on an index card. Each is worth 1 point.

Office visit: It is important for me to get to know you and how I can support your success. Please schedule a short 5 minute office visit with me during the first three weeks of class.

Statement of Inclusion

To promote academic excellence and learning environments that encourage multiple perspectives and the free exchange of ideas, all courses at LBCC will provide students the opportunity to interact with values, opinions, and/or beliefs different than their own in safe, positive and nurturing learning environments. LBCC is committed to producing culturally literate individuals capable of interacting, collaborating and problem-solving in an ever-changing community and diverse workforce. LBCC is an equal opportunity educator and employer.

Your responsibilities:

1. A huge amount of the learning in this course happens in real time, during class. Come ready to participate and work. Long lectures will be rare occurrences in this class, so you should be prepared to be active throughout the class.

2. If you absolutely MUST be absent, please let me know ahead of time. You may or may not be able to make up the work done in class.

3. I expect you to check the Moodle website regularly to stay updated with current class information and due dates.

4. Respect your instructors and your classmates, and we will return the favor. Respect includes creating an environment conducive to learning, which means being on time, staying for the entire class, turning off cell phones, listening, and contributing.

5. Honor Code Considerations: This class is highly collaborative; however, there are expectations for individual work as well. If it is ever unclear to you, please ask. Any cheating, plagiarism, etc., may result in a zero and possible recommendation to the administration for further consequences.

6. LBCC is committed to inclusiveness and equal access to higher education. If you have approved accommodations through the Center for Accessibility Resources (CFAR) and would like to use your accommodations in this class, please talk to your instructor as soon as possible to discuss your needs. If you believe you may need accommodation but are not yet registered with CFAR, please visit the CFAR website at www.linnbenton.edu/cfar for steps on how to apply for services or call 541-917-4789.

My responsibility:

I am here to help you learn. Only you can do the learning, but expect me to be available for help during class and office hours and to facilitate the learning process.

A FINAL NOTE: I sincerely believe that each of us can be a resource in this course. I hope you will ask questions, initiate discussion, and take an active part in the class and your learning. In this way, I think we will all learn more! **Thanks, Deron**

| Week | Monday | Wednesday | Friday |
|---------------|---|--|---|
| 1 | Course introductions | Ch. 11 Reading Quiz Landslide types and triggers | Lab: Topographic maps |
| 2 | Homework #1 Landslide case studies | Homework #2 Landform scavenger hunt | Lab: Geomorphology of Yosemite |
| 3 | NO CLASS Martin Luther King, Jr. Day | Homework #3 Mapping landslide hazards | Lab: Field Trip to Baker Creek Landslide* |
| 4 | EXAM 1 | Homework #4 Hydrologic cycle and water resources | Lab: Campus stream measurements |
| 5 | Ch. 12 Reading Quiz Streams | Homework #5 Streams, human impact on streams | Lab: Streams and flooding |
| 6 | Ch. 13 Reading Quiz Groundwater | Homework #6 Groundwater; Love Canal case study | Lab: Groundwater resources and availability |
| 7 | NO CLASS President's Day | Ch. 15 Reading Quiz Deserts; Africa case study | Lab: Deserts |
| 8 | EXAM 2 | Ch. 16 Reading Quiz Coasts | Lab: Wave tanks |
| 9 | Homework #7 Sea-level rise; Bangladesh case study | Homework #8 Anthropogenic climate change | Lab: Greenland ice sheet |
| 10 | Ch. 14 Reading Quiz Glaciers | Homework #9 Glaciers; local and eustatic sea level change | Homework #10 Adapting to sea level rise FINAL Review |
| Final 3/20 | | FINAL EXAM 8:00-9:50 am MH 108 | |

All homework assignments and reading guides are posted on Moodle.

Some college transportation provided or you may drive your own vehicle. Driving directions are posted on Moodle. Please wear shoes that can get muddy and have a raincoat.