GEOL 101: Geology of Planet Earth (Spring 2019)
Tuesdays and Thursdays, 2:00 – 3:15 PM, Live Oak 1231

Instructor: Dr. Julian Lozos
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Office hours: Wednesdays, 3:00-5:00 PM, or by appointment
Final exam: Due online by 5:00 PM on Thursday, 16 May 2019

Whether or not you realize it, your day to day life is shaped by the geology that underlies the places where you live, work, and play. The study of geology goes far beyond identifying rocks, and into understanding how the dynamic system that is our Earth got to be the way it is and how it continues to change over time. By the end of the semester, I hope to convince you that earth science is a broad, complex, and fulfilling field with many applications in research, education, engineering, and resources.

This course will introduce you to core principles of physical geology – principles that are a key starting point for continuing in any aspect of earth or environmental science. By the end of this class, you should be able to describe the basic structure and building blocks of the earth (including plate tectonics, minerals, and rocks), explain how deep processes shape the landscape (including mountain building, earthquakes, and volcanoes), and explain how surface processes (including landslides, water, and ice) interact with and alter those tectonic features.

This course addresses the following Student Learning Outcomes for a lower-division general education course in the natural sciences:

1. Demonstrate an understanding of basic knowledge, principles and laws in the natural sciences.
2. Explain how the scientific method is used to obtain new data and advance knowledge.
3. Demonstrate an understanding of the logical foundations and boundaries of science.
4. Recognize the contribution and potential of science in human society and everyday life.

Textbook
Essentials of Geology, by Stephen Marshak (either the 5th or 6th edition is fine)
Please complete all readings prior to the class in which we discuss the material. I will be structuring my lectures around the assumption that you have done so.

Your Responsibilities
1. Come to class prepared. This means being up to date on readings and previous lectures, as well as being ready to discuss these topics in class. (There has been a strong correlation between attendance and final grade in all of my classes at CSUN to date!)
2. Respect your classmates and professor. There will be a lot of discussion in this class, so please treat everyone as you wish to be treated in a learning environment. Respect
includes being on time, paying attention to each other, and putting social media away during class.

3. Please let me know as soon as possible if you will be absent or unable to turn in an assignment as listed in this syllabus. You may not always be able to make up for the work, but the later I find out that you may miss something, the harder it will be for me to make accommodations for you.

4. If you need any special physical or learning accommodations, please let me know as soon as possible. I can’t account for things that I don’t know about.

My Responsibilities

I am here to help you learn. I will be handing out outlines of key points for each topic in the course, and will post these and my lecture slides on Canvas. I certainly hope that I can also instill some enthusiasm about this topic in you, but at the very least, I am here to help you learn this material. I cannot do the learning for you, but I’ll do what I can to facilitate. You can expect me to be available for class and office hours, and readily reachable by email.

Your grade is based on total points earned out of 500:

1. Multiple Choice Tests (three of them, 100 points each)
   • 5 March
   • 4 April
   • 9 May

2. Take-Home Written Final (100 points)
   Due online by 5:00 PM on Thursday, 16 May 2019

3. Homework and in-class quiz questions (100 points)

Grading Scale

A: 90-100%
B: 80-89%
C: 70-79%
D: 60-69%
F: Below 60%

I do not give pluses and minuses except in cases of borderline percentages in which a student’s class participation is notable. Someone with 88% who consistently asks/answers questions and otherwise participates could conceivably get a B+, whereas someone with 72% who is very disruptive and disrespectful could get a C-.

I do not curve grades, but there will be several opportunities for extra credit throughout the semester.

Late Assignment/Makeup Policy:
• For regular homework assignments, I will deduct 20% of your score on the assignment for each day it is late.
• I will only schedule alternate testing dates if you give me documented proof in advance of a reasonable excuse for being unable to attend class that day, or if you can provide concrete proof of serious illness.
• It is not possible to make up in-class quiz questions. Attendance is required to earn these points.

Dr. Lozos’ Email Policy
If you have a question or are confused about something, by all means, email me! You don’t have to wait until office hours to come talk. That said, here are a few things to keep in mind.
  • I get a lot of email, and my spam filter is more aggressive than I’d like. If you haven’t heard back from me within 36 hours of sending your message, please send me a reminder.
  • If you email me less than 12 hours before class (i.e. later than 11 PM on Monday or Wednesday), I do not guarantee you a response before class.
  • I set aside my Fridays for my own research. Don’t expect a response from me on a Friday.

ROUGH COURSE SCHEDULE

22 January – Introduction/What Is Geology
24 January – Formation and Structure of the Earth (chapter 1)
29 & 31 January – Plate Tectonics (chapter 2)
5 & 7 February – Minerals (chapter 3)
12 February – Igneous Rocks (chapter 4)
14 & 19 February – Sedimentary Rocks (chapter 6)
21 & 26 February – Metamorphic Rocks (chapter 7)
28 February – The Rock Cycle (interlude C)
5 March – Test 1
7 March – Geologic Structures and Mountain Building (chapter 9)
12 & 14 March – Earthquakes (chapter 8)
19 & 21 March – NO CLASS (Spring Break)
26 & 28 March – Volcanoes (chapter 5)
2 April – Geologic Time (chapter 10)
4 April – Test 2
9 & 11 April – Landslides and Other Mass Movements (chapter 13)
16 & 18 April – Rivers and Floods (chapter 14)
23 & 25 April – NO CLASS (Dr. Lozos at Seismological Society of America conference)
30 April – Glaciers (chapter 18)
2 & 7 May – Global Change (chapter 19)
9 May – Test 3
16 May – Take-home written final due on Canvas by 5:00 PM