

# PHYSIC 10A - EARTH SCIENCE

ms.yccd.edu/earth\_science/EarthScience

**PROFESSOR:** Dr. Betsy Julian; Room 820; 634-7676; [bjulian@yccd.edu](mailto:bjulian@yccd.edu)

**OFFICE HOURS:** T 4:30-5:30pm; M, W, & Th 1-2 pm; F 10 -11 am

I'm also available by appointment or whenever you can find me

**TEXT:** EARTH SCIENCE, Tarbuck and Lutgens (11<sup>th</sup> or 12<sup>th</sup> ed)

<b>dates</b>	<b>chapter</b>	<b>topic</b>
week 1	1, 2	Intro and Minerals
week 2	3	Minerals and Rocks
week 3	3,9	Rocks & Volcanoes
2/11		<i>Last day to drop with no record</i>
week 4	6	Landscapes
2/12, 2/15		<i>(IPresidents'days)</i>
week 5	6	Landscapes
week 6	8	Earthquakes
<b>2/25</b>		<b>Exam #1</b>
week 7	7, 8	Earthquakes
week 8	10	Plate Tectonics
week 9	11	Geologic Time
week 10	12	Earth History
3/29 – 4/2		<i>spring break</i>
week 11	16	Seasons
week 12	16	Atmosphere
<b>4/15</b>		<b>EXAM #2</b>
week 13	16 & 17	Temperature & Moisture
4/23		<i>(last day to withdraw)</i>
week 14	18	Pressure and wind
week 15	20	Climate
week 16	22	Solar System

**Final Exam – Tuesday May 25 - 10-11:50 am**

<b><u>GRADING:</u></b>	Exam 1	100 points	<b><u>FINAL GRADE:</u></b>	
	Exam 2	100 points	A	>450 points
	Final exam	160 points	B	400-449 pts
	Quiz & hwk	140 points	C	350-399 pts
	<b>Total</b>	<b>500 points</b>	D	300-349 pts

## **CLASSROOM POLICIES:**

**Make-up work:** Make-ups on exams must be approved *prior to the absence*. If you are sick on the day of the exam, you must contact Dr. Julian before the exam is scheduled. **No** final exams will be given early. Please do not make vacation plans that interfere with exams.

No make-up quizzes will be given since only the 8 best quiz grades are used.

Late homework is subject to penalty of 10% per day. No credit will be given once homework assignments have been discussed or graded and returned.

**Attendance:** Although lecture attendance does not count for a percentage of your grade, it is very difficult for most students to pass this course unless they attend every class. Class discussions will cover topics not covered in the textbook, including local examples. Missing quizzes will hurt your grade. Please do not chat with your classmates during lecture. Students are expected to arrive to class on time; persistent tardiness will not be allowed.

**Cell phones and pagers:** Please turn off all cell phones and audio pagers before class. If your cell phone 'rings' during an exam, you will be penalized 10 points on your exam grade.

**Group work:** Feel free to discuss homework assignments with your classmates. However, *each individual must write up their assignments in their own words*. All quizzes and exams are done independently.

## **OFFICE HOURS:**

My office hours are listed on the front page of this syllabus. These are hours when I will be in my office. You may drop by or call to raise questions or concerns about the course, discuss your grade, or just to chat. If you need to speak with me about the course but cannot come to my office during the posted hours, I will make an appointment to meet with you at another time. Don't forget e-mail; this is a very efficient way to ask simple questions.

## **COURSE OBJECTIVES:**

1. explain how minerals form and analyze the physical properties of minerals.
2. analyze the rock cycle in terms of the three main types of rocks and the processes that connect them.
3. describe how geologic time is organized and explain some techniques used to determine relative and absolute age
4. Explain the cause of earthquakes, how earthquakes are measured, and the effect of earthquakes on people and structures.
5. Contrast the three main types of plate boundaries in terms of volcanism, seismic activity, landforms and plate motion.
6. compare the processes of erosion, transport, and deposition associated with a variety of sedimentary environments.
7. describe what the ocean floor looks like and explain how these features originated
8. explain where ocean waves come from, how they move, and how waves are affected by, and in turn affect the shorelines.
9. evaluate the effect of the Sun and moon on Earth's tides.
10. evaluate the effects of Earth's motion on seasons, climate, and length of day.
11. describe variations in the atmosphere's composition, pressure and temperature.
12. explain the conditions under which clouds and various types of precipitation form.
13. construct a diagram showing the Earth's major wind patterns, and explain how these wind systems are influenced by pressure zones and how, in turn, these winds affect ocean currents.
14. describe and locate the major climate zones of the Earth.
15. analyze how the relative positions of the Earth, sun and moon control the phases of the moon and the occurrence of eclipses
16. describe our solar system and its place in the universe

## HELPFUL HINTS:

- **Come to class!**
- Review material regularly - multiple short study sessions over a period of weeks are more effective than a single “cram” the night before an exam. Even the few minutes before class can be used to review the previous lecture.
- Form a study group. Each member should study material on their own before meeting with the group for discussion and comparison.
- Take care with homework assignments. They really help prepare you for class and exams.
- Write out definitions and answers to essay questions
- Ask questions in class.
- Combine class notes, textbook, handouts, and old exams when studying - each provides a different perspective.
- Review your first two exams regularly so that you are prepared for the final exam.

## OTHER POINTS OF INTEREST:

- I will give some extra credit points to people who bring in descriptions of local examples of features discussed in this class, or do research on a topic that extends beyond the scope of this class. There is a limit to how many extra points you may receive.
- Please let me know if you have special needs for taking exams or participating in class exercises. Students with disabilities who may need accommodations for this class are encouraged to notify me and contact Disabled Students Programs and Services (DSPS) early in the semester so that reasonable accommodations may be implemented as soon as possible.
- While you are welcome to bring food and drink into the class, please be considerate of others. Don't bring any food that is excessively noisy or smelly.