
EART 5: CALIFORNIA GEOLOGY FALL 2019

Tu-Th 9:50-11:25 E&MS B206

Professor Elise Knittle, E&MS C448

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Website: <https://canvas.ucsc.edu>

<u>Date</u>	<u>Day</u>	<u>Lecture Topic</u>	<u>Recommended Reading</u>
9/26	Thurs	Class Intro, Plate Tectonics, & Earth Structure	Reading #1 (website)
10/1	Tues	Minerals & Igneous Rocks	Reading #2 (website)
10/3	Thurs	Sedimentary, and Metamorphic Rocks	Reading #3 (website)
10/8	Tues	Geologic Time, Age dating, Fossils of CA (Quiz)	Harden Chap.3
10/10	Thurs	CA's Young Volcanoes	Harden Chap. 5
10/15	Tues	Sierra Nevada and prep for campus field trip	Harden Chap. 8 (156-175)
10/17	Thurs	UCSC Campus Geology: Walking Field Trip #1	
10/22	Tues	Sierra Nevada and Gold rush (Quiz)	Harden Chap. 8 (176-198)
10/24	Thurs	Coast Ranges, Great Valley	Harden Chaps. 11, 12
10/29	Tues	Midterm Exam: Covering Lectures and Reading through 10/25	
10/31	Thurs	San Andreas Fault	Harden Chap. 14
11/5	Tues	Earthquakes	Harden Chap. 13
11/7	Thurs	Water resources	Harden Chap. 10
11/12	Tues	Coastal Geology (Quiz)	Harden Chap. 15
11/14	Thurs	Oceans	
11/16	Sat	Field Trip to Pinnacles National Park (required for 5L)	
11/19	Tues	Glaciers and Ice Ages	Harden Chap. 8 (198-212)
11/21	Thurs	Deserts	Harden Chap. 6
11/26	Tues	UCSC Campus Walking Field Trip #2: Caves (bring flashlights!)	
11/28	Thurs	Thanksgiving NO CLASS	
12/3	Tues	Tranverse Ranges and Oil (Quiz)	Harden Chap. 16
12/5	Thurs	CA geologic history	Harden Chap. 18

12/10 TUES DEC 10: Final Exam: 12:00-3:00 pm E&MS B206

READINGS: All the course readings will be on the website under the relevant week. This includes the readings from D. Harden, California Geology (out of print) will be posted on the website.

Reading #1: Marshak, S., 2005, Earth, Portrait of a Planet, Chap. 2, The Way the Earth Works: Plate Tectonics, p. 76-105.

Reading #2: Marshak, S., 2004, Essentials of Geology, Chap. 3, Patterns in Nature: Minerals p. 80-97.

Reading #3: Press, F. and Siever, R., 1998, Understanding Earth, Chap. 3, Rocks: Records of Geologic Processes, p. 58-73.

IMPORTANT INFORMATION!!!

If you plan on **majoring/minoring** in Earth and Planetary Sciences, you **must take the accompanying lab course EART 5L**. Of course, anyone is welcome to take the lab! You do **NOT** have to attend a **Discussion Section** for this class (we know you had to sign up for one....) if you are taking EART 5L.

Everyone NOT taking the Lab EART 5L MUST attend a Discussion Section. Section attendance is **required**.

NOTE!!!! There will be pre-Discussion Section and pre-Lab on-line quizzes EVERY WEEK! These must be completed on the Canvas Website!! See the attached sheet for more information about the expectations for Discussion Section and the Lab EART 5L.

ES 5 Discussion Section and ES 5L Lab Schedule and Topics

<u>Week of</u>	<u>Topic</u>
10/1	Minerals
10/8	Rocks
10/15	More Rocks & Campus Field Trip Exercise
10/22	Topographic Maps
10/29	Geologic Structures as illustrated by Play Dough
11/5	Earthquakes
11/12	California Water: Karst and Campus Caves
11/19	Coast Geology
11/26	NO LAB or SECTION THIS WEEK!!
12/3	Catch-up week if needed

Handlens: Strongly suggested for EART 5L lab. Ask at checkout desk of bookstore ~ \$6

Lab Manual REQUIRED for EART 5L ONLY: Laboratory Manual in Physical Geology, 10th Edition, ed. by R.M. Busch. Available as an e-book and in the bookstore.

GRADING CRITERIA

If you are taking JUST EART 5 with the required Discussion Section the following weighting applies: In-Class Quizzes (20%), Midterm (20%), Final (25%), Discussion Section exercises (15%), Campus Field Trip (5%), Timeline (5%), Pre-Discussion Section on-line quizzes (10%).

If you are taking EART 5 with EART 5L (which is graded separately) the following weighting applies: In-Class Quizzes (25%), Midterm (25%), Final (30%), Campus Field Trip (5%); Timeline Exercise (5%), Pre-Lab on-line quizzes (10%).

EART 5L weighting: Lab exercises (100%).

IMPORTANT INFO FOR Discussion Section and EART 5L Lab

Every week we will ask you to come prepared for Discussion Section or Lab by doing the assigned reading and taking an on-line quiz prior to the start of Section or Lab.

The on-line quiz will be released after Thursday lecture every week. It will be due at 11:59 pm the following Monday for EVERYONE.

Before you take the quiz, check the instructions for which lecture slides, readings etc. will be on the quiz.

You will get two tries for every quiz and the highest score will be recorded.

Your lowest on-line quiz score for the quarter will be dropped in the calculation of your grade.