

Earth Sciences 5: California Geology Summer Session 2: 2022

All lectures and virtual field trips for this class will be presented asynchronously. That is, the material will be pre-recorded as Zoom lectures and posted on the Canvas website week by week. You can watch the lectures at any time that works for you.

Professor: Elise Knittle, Earth & Marine Science C468

Contact Info: I like **email:** eknittle@ucsc.edu. If you use the Canvas message function I should get an email alerting me. I try to answer emails the same day I get them as long as you email me before 9 pm. If you don't hear from me in 8-12 hours email me again.

Office Hours: Thursday 11 am – 1 pm remote on Zoom (link provided on Canvas) and by appointment. My Office Hours are first come, first serve and I use a waitroom and generally only talk to one student at a time. If you need a specific time, email me for an appointment.

TA: Sarah Neuhaus; suneuhau@ucsc.edu, Office hours: Wed 2-4 pm on Zoom

Class website: <https://canvas.ucsc.edu>. I like to use the **Modules** function on Canvas. There is a Module for each Week which contains the readings, lectures, links to the on-line quizzes etc. **NOTE!!!** All the modules are currently filled with the readings only. **The lectures, quizzes and homeworks will be posted week by week.**

IMPORTANT – the times/deadline listed for this course are in Pacific Daylight Time! If you are in a different time zone it is YOUR responsibility to make sure that you meet course deadlines!!

Text and Readings: I will post readings on Canvas to augment the lecture material – I will have the weekly readings under the Module for each week. I primarily use scanned chapters from Debra Harden's (out of print) book "California Geology" augmented in the early weeks by selected book chapters. Use the **lecture content** as a guide for what I think is important!! The readings will give you extra information and expand upon the lecture material – use it if it helps you. I **never** give quiz or test questions that come only from the readings.

Assessment: Please read the document on course assessment posted on Canvas which gives more detailed info. Briefly there are: 1) **short on-line quizzes** associated with most of the lectures 2) **three homework** assignments (one of which is a remote field trip assignment) and 3) **four longer Midterm Quizzes**. All of the quizzes will be taken through Canvas. All deadlines are given on Canvas but in general the lecture quizzes and homeworks will be due Fridays at midnight and for the Midterm Quizzes you will have a 42 hour window beginning on Thursdays at 6 am and ending Friday at 12 am (midnight) – you may take the midterm quiz anytime in that window but once you start you will have 75 minutes for Midterms #1, #2 and #3 and 90 minutes for Midterm #4.. If you have a DRC accommodation, I will adjust your times in accord with your accommodation.

My goal with the deadlines is to encourage you keep up with the class and not to get behind – summer session goes fast and there is a lot of material to cover in just 5 weeks.

If you are planning on being a UCSC EPS Major or Minor you will need to take the accompanying lab course EART 5L. For summer session this will be remote, synchronous – so you will meet over Zoom at the scheduled time. (You can also take just the Lab EART 5L in person in Fall quarter 2022)

WEEKLY SCHEDULE
EART 5
Summer Session 2: 2022

WEEK 1 (July 25-29)

Lecture Topics: Class Intro; Plate Tectonics, & Earth Structure; Minerals and Rocks relevant to California Geology

Reading: Readings #1, #2, #3 from the website

Assignments: short on-line quizzes following each lecture; Homework #1; Midterm Quiz #1

WEEK 2 (August 1-5)

Lecture Topics: Geologic Time; California's Young Volcanoes Parts 1 and 2; Sierra Nevada; Geologic Structures (faults etc.);

Assignments: short quizzes following each lecture; Midterm Quiz #2

WEEK 3 (August 8-12)

Lecture Topics: Economic Geology of California (gold and other valuable minerals); Coast Ranges and Great Valley; San Andreas Fault; Earthquakes

Reading: Harden Chap. 8 (156-198), Chapters 11, Chap 12, 13, 14

Assignments: short quizzes following each lecture ; Homework #2, Midterm Quiz #3

WEEK 4 (August 15-19)

Lecture Topics: Remote Campus Field Trip; CA Water Resources; Groundwater and Karst; CA Tectonics and Coastlines;

Reading: Harden Chapter 15

Assignments: short quizzes following each lecture; Homework #3 (Field Trip Exercise)

WEEK 5 (August 22 -26)

Lecture Topics: Waves, Shorelines and Tsunamis; Ice Ages and CA Glaciers; CA Climate; Deserts; CA Oil Resources and the Transverse Ranges; California Geologic History – putting it all together...

Reading: Harden Chapter 6, Harden Chap. 8 (198-212), Chap 16, Chap 18

Assignments: short quizzes following each lecture; Midterm #4

