

## Earth Sciences 5: California Geology (Online, Asynchronous) Summer Session 2023

**All lectures and the virtual field trip 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 C448

**Contact Info:** I like email: [eknittle@ucsc.edu](mailto: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:** Wed 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:** Genesis Berlanga; email: [gberlang@ucsc.edu](mailto:gberlang@ucsc.edu), Office hours: TBD

**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.

### **Learning Objectives:**

- 1) Understand plate tectonics and associated phenomena such as earthquakes, volcanos, and mountain building primarily using examples from California geology;
- 2) Study rocks and minerals and their association with geologic processes using examples from California geology;
- 3) Understand basics of climate, ice ages, glacial cycles, hydrology, sea level change and deserts using examples from California geology and the geology of the UCSC campus.

**Assesment:** 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 36 hour window beginning on Thursdays at 12 pm (noon) and ending Friday at 11:59 pm (or basically 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 – please give me your paperwork as soon as possible as it takes time for me to set this up.

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.

Quizzes – 25% of total grade

Midterms (4) – 55% of total grade

Homeworks (3) – 20% of total grade

**Distribution of Time:** Students should anticipate spending approximately 30 hours per week on this course, consisting of 7 hours of lecture, 10 hours of reading, 3 hours on homework, and 10 hours studying for and taking quizzes/midterms.

**If you are planning on being a UCSC EPS Major or Minor you will need to take the accompanying lab course EART 5L in Fall quarter 2023 (the course is in person).** There is no summer version of the lab EART 5L in 2023.

## WEEKLY SCHEDULE

### EART 5

#### Summer Session 2: 2023

WEEK 1 (July 31-August 4)

**Lecture Topics:** Class Intro; Plate Tectonics, & Earth Structure; Minerals and Rocks relevant to California Geology (*Learning Objective 1*)

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

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

WEEK 2 (August 7-11)

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

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

WEEK 3 (August 14-18)

**Lecture Topics:** Economic Geology of California (gold and other valuable minerals); Coast Ranges and Great Valley; San Andreas Fault; Earthquakes (*Learning Objectives 1 & 2*)

**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 21-25)

**Lecture Topics:** Remote Campus Field Trip; CA Water Resources; Groundwater and Karst; CA Tectonics and Coastlines (*Learning Objective 3*)

**Reading:** Harden Chapter 15

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

WEEK 5 (August 28 – Sept 1 )

**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...  
(*Learning Objectives 1 & 3*)

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

**Assignments:** short quizzes following each lecture; Midterm #4

**Academic Integrity Policy:** My policy is: All the quizzes will be **open notes/lectures/book**. This includes both the short lecture quizzes and longer Midterm Quizzes. However, note that both the short and long quizzes are timed and there will be no exceptions to that timing unless you have a DRC accommodation for extra time on exams or quizzes which has been provided to me at least 48 hours in advance of the quiz so I have time to set it up for you. You may NOT collaborate or in any other way work with another student on the class quizzes or give another student the questions in advance. That will be considered cheating and you will get a zero for the assignment. For the homework, you can discuss with other students or your TAs or me but you must write up and submit your work yourself in your own words. If you work as a group, photocopying the same paper and submitting it under everyone's name will result in a zero (as just as one specific example).

*Academic integrity includes:*

- Following exam rules
- Using only permitted materials during an exam
- Viewing exam materials only when permitted by your instructor
- Keeping what you know about an exam to yourself
- Incorporating proper citation of all sources of information
- Submitting your own original work

*Academic misconduct includes, but is not limited to, the following:*

- Disclosing exam content during or after you have taken an exam
- Accessing exam materials without permission
- Copying/purchasing any material from another student, or from another source, that is submitted for grading as your own
- Plagiarism, including use of Internet material without proper citation
- Using cell phones or other electronics to obtain outside information during an exam without explicit permission from the instructor
- Submitting your own work in one class that was completed for another class (self-plagiarism) without prior permission from the instructor.

Violations of the Academic Integrity policy can result in dismissal from the university and a permanent notation on a student's transcript. For the full policy and disciplinary procedures on academic dishonesty, students and instructors should refer to the [Academic Misconduct page \(https://ue.ucsc.edu/academic-misconduct.html\)](https://ue.ucsc.edu/academic-misconduct.html) at the [Division of Undergraduate Education \(https://ue.ucsc.edu\)](https://ue.ucsc.edu).

If you have questions about what I consider acceptable in terms of avoiding academic misconduct I would be happy to answer them.

**Accessibility:** UC Santa Cruz is committed to creating an academic environment that supports its diverse student body. If you are a student with a disability who requires accommodations to achieve equal access in this course, please affiliate with the DRC. I encourage all students to benefit from learning more about DRC

services to contact DRC by phone at 831-459-2089 or by email at [drc@ucsc.edu](mailto:drc@ucsc.edu). For students already affiliated, make sure that you have requested Academic Access Letters, where you intend to use accommodations. You can also request to meet privately with me during my office hours or by appointment, as soon as possible. I would like us to discuss how we can implement your accommodations in this course to ensure your access and full engagement in this course.

**CARE/Title IX/CAPS:** The [Title IX Office](#) is committed to fostering a campus climate in which members of our community are protected from all forms of sex discrimination, including sexual harassment, sexual violence, and gender-based harassment and discrimination. Title IX is a neutral office committed to safety, fairness, trauma-informed practices, and due process.

Title IX prohibits gender discrimination, including sexual harassment, domestic and dating violence, sexual assault, and stalking. If you have experienced sexual harassment or sexual violence, you can receive confidential support and advocacy at the Campus Advocacy Resources & Education (CARE) Office by calling 831-502-2273. In addition, Counseling & Psychological Services (CAPS) can provide confidential, counseling support, 831-459-2628. You can also report gender discrimination directly to the University's Title IX Office, 831-459-2462. Reports to law enforcement can be made to UCPD, 831-459-2231 ext. 1. For emergencies call 911.