

EART 3: Geology of National Parks Online

Winter Quarter 2018

About

Geology of National Parks Online is an **activity-based** class collaboratively created by three Earth Science faculty members from UC Santa Cruz, UC Davis, and UC San Diego. This course will cover introductory geologic concepts with special focus on U.S. National Parks.

Through a series of activities, mini-lectures and readings, we'll explore how geologic processes control the landscapes and features in our parks. Along the way you'll learn about the concepts of geologic time, plate tectonics and how the rock record can be used to reconstruct the geological story of the parks.

Instructor Information: Your instructor for this class is UCSC Earth and Planetary Sciences Professor Susan Schwartz

Online Office Hours: TBA

Textbook: *Exploring Geology, 3rd or 4th edition* by Stephen Reynolds, Julia Johnson Paul Morin, and Chuck Carter (hard copy or ebook)

Module Workflow and Estimated Time Required

- Read & Watch (4-5 hours per week)
 - Read assigned text
 - Watch through mini-lectures- take notes
 - You may find it beneficial to alternate reading and watching
 - Complete comprehension quiz
- Learn and Apply (2-6 hours per week)
 - Work through the tutorials and graded activities
- Connect (1 hour per week)
 - Interact with your classmates and instructors through Piazza and Office Hours

Module Activities

Each module has one comprehensive activity designed to enhance your understanding of course material. Your lowest scored module activity for modules 1-9 will be dropped from your final grade. All students have to complete the module 10 activity as a study guide for the final.

Quizzes

There will be 1 short quiz associated with each module. These will be graded but you will have unlimited attempts to complete these quizzes.

There will be two longer quizzes that are timed and you submit after a single attempt. These will take place at the ends of modules 3 (Quiz 1) and 8 (Quiz 2).

Exams

The midterm and final exams are administered online by Proctor U (for a fee). The dates of the midterm and final are the only time students will need to be available at particular dates/times.

- Midterm: 2/8/18
- Final: 3/19/18

Grading

Final (Multiple Choice, Matching, etc)	25%
Midterm (Multiple Choice)	15%
Quizzes (2)	10%
Application Activities	45%
Comprehension Quizzes	5%

Academic Integrity

- We expect the highest levels of academic integrity in this class. Any cheating of any kind will be referred to the university for disciplinary action.
- Work may be collaboratively done, but the work that you hand in must be your own. A simple way to figure out if the work is your own is to ask whether or not you can reproduce it in entirety without the aid of any other people or your assignments.

Content Overview

	Geologic Province	National Park
Module 1	Colorado Plateau	Grand Canyon
Module 2		
Module 3		Zion Bryce Arches
QUIZ #1		Canyonlands
Module 4	Cascade Range	Mount Rainier Mount St. Helens Crater Lake Lassen Volcanic Complex
Module 5	Hotspot Volcanism	Hawai'i Volcanoes

		Yellowstone
Midterm Exam		
Module 6	Sierra Nevada	Yosemite Kings Canyon Sequoia
Module 7	Rocky Mountains	Rocky Mountain Glacier
Module 8 QUIZ #2	Basin and Range	Death Valley Grand Teton
Module 9	San Andreas Fault	Pinnacles Point Reyes
Module 10	North American West Synthesis	
Final Exam		