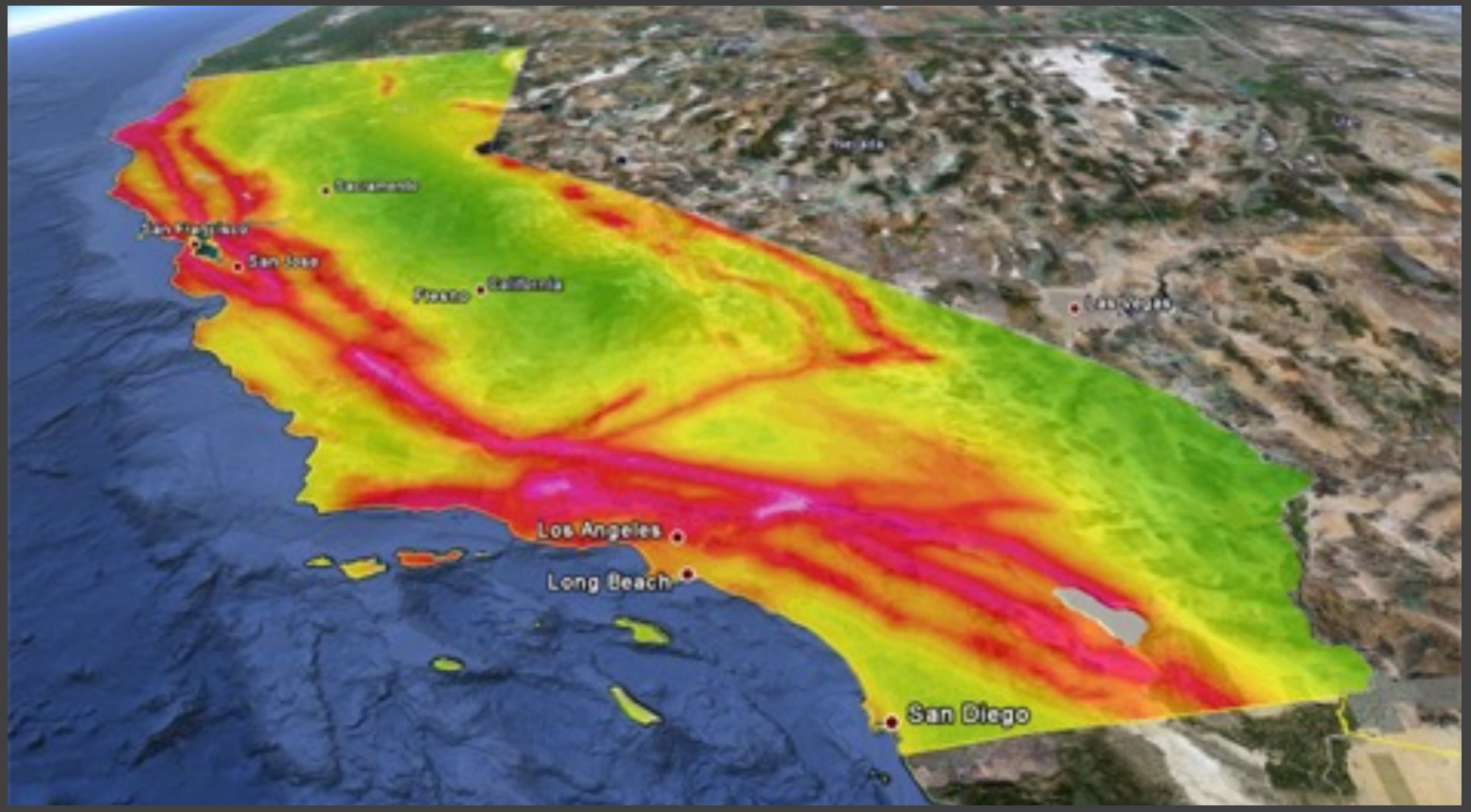
GS 5: YOU ARE LIVING ON THE EDGE

FOR THE NEXT FOUR YEARS! –BACK by popular demand!

2 DAY field trip along California Coast

The Department of Geological Sciences invites **YOU** to come take a look over that edge! (1 unit)



THE RED ZONE: Earthquakes most likely

GS 5: Living on the Edge Brought to you again by popular demand!

Are you new to the Bay Area? **Welcome to life along the Pacific Rim of Fire!** Do you wonder about the San Andreas Fault and earthquakes? How people live with its associated threats? Winter weather, mudslides and sea cliff erosion? Do you want to discover where the best beaches are? Hidden redwood forests? Do you wonder where your water comes from? Do you want to learn more about the Earth Sciences? California's geology is ROCKIN' AND ROLLIN' !

This class is a weekend field trip to the Pacific Coast. Tour local beaches, geology, landforms, earthquake, volcanic and climate hazards with expert guides. Enjoy a locally grown, seasonal BBQ dinner and camp overnight on the Santa Cruz coast. Get to know your fellow students and faculty and graduate students in the Earth Sciences. You will come away with **a better sense of your local EARTH and your place within it!**

Logistics Meeting:
Science Meeting:
Field Trip: Leave:

Requirements: An organizational and two afternoon/eve campus meetings and the weekend field trip to the Pacific Coast (**1 credit S/NS**). Attendance at meetings and field trip is required as is taking notes on the field trip and turning them in (we read them!). Limited to ~25 students (Frosh have first choice) Instructors: Miller + various

The “Edge” :
Highway 1 at Devil’s Slide

Original Highway 1 as it crosses Devil’s Slide along the coast. In 2013 a tunnel was completed through the mountains to bypass the slide at a cost of ~500M . We will walk on the original highway (if it is still there..). The coastline here is erosional (waves pounding at base of rock cliffs) and land is rising as the Pacific and North American plates converge slightly as they slip past each other along the San Andreas transform fault.

Take a plunge into “Deep Time” (that’s like millions of years)

Boulders in a Cretaceous sandstone (80 million years old) were eroded from rocks in southern California and moved 100’s of km north to Pigeon Point, giving good control on the amount of slip along the San Andreas transform fault. How do geologists figure things like this out? …it’s complicated.. but it’s helpful that rocks have clocks!

In the Miocene (23-5 million years ago), the land mammal *Pujilla Darwini* evolved into the elephant seals who mate on the beaches of northern California. We will see elephant seals but they aren’t mating right now.

Thanks NPS

Warning: The Edge can be warm or very cold in Spring and Fall!

GS 5
Living on the Edge…

Questions?

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