

EES 3 (formerly Geology 3) Field Trip Class, Spring 2009

1 credit unit, Credit/No Credit, Class No. 36633



Environmental Time Bombs of California



Environmental and Engineering Geology Field Trip to the Sacramento-San Joaquin Delta and the Bay Area Earthquake Faults

4-day 3-night trip (Thursday, March 26 through Sunday, March 29, 2009),
2 Monday evening lectures (February 9th and March 16th at 5pm).

Of course you still remember what happened to New Orleans three years ago. However, do you think a disaster of a similar magnitude could occur here in California? Absolutely! It can happen any day. The unfortunate fact is that it may be much worse than the Katrina Disaster or the 2004 Tsunami.

For this fieldtrip class, we will study and visit the two most ominous environmental time bombs at our doorsteps – the San Andreas Fault and the Sacramento-San Joaquin Delta. The latter is the hub of California's water supply system. We will visit the ground zero of catastrophes that would potentially kill and injure thousands, displace millions, cause billions of dollars of damage, inundate subdivisions, towns, and farmlands with a deluge of biblical proportion, cut off the drinking water supply for two out of three Californians, and force our economy to a squealing halt.

We will learn what our government is doing, or not doing, to defuse the crisis. We will examine the science, the history, the facts, the engineering solutions, and most significantly, the political reality. To help you prepare for this trip, a Blackboard site will be set up with references and links to other non-technical reading materials.

Planned activities include:

- Tour the intake and pumping plant of the California Aqueduct, which supplies drinking water to more than 20 million people
- Walk on the levees that hold back the sea from 1,150 square miles of prime agricultural land
- Be dumbfounded by the fact that thousands of people living in subdivisions and towns situated many feet below sea-level
- Witness the movement of an earthquake fault along city streets
- Go inside a winery that is being torn apart by the San Andreas Fault
- Explore the epicenter of the infamous 1906 San Francisco earthquake
- Examine rocks that were brought up from the deep ocean floor millions of years ago
- Be awed by the research conducted with a hydrological model of the San Francisco Bay larger than a football field.

The trip will be led by Dr. John Suen, Professor of Geology and Chief Hydrogeologist of the CA Water Institute. This course is open to all CSUF students – science or non-science majors, and is highly recommended for students who are interested in the environment and water resources. No paper, exam, or follow-up work is required. For more information, please call the Earth & Environmental Sciences Department at 278-3086. **Space is limited. Sign up today!** (Class Number: 36633)

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FACILITIES: We will tent camp in developed campsites. No prior camping experience is necessary. You will need to bring warm clothes, a warm sleeping bag and a tent. A detailed equipment list will be provided at the class meeting.

MEALS: Our staff will expertly prepare dinners in camp. Breakfast will be provided each morning with hot coffee and hot water. We will pack lunches in camp before heading out in the field for the day, Friday through Sunday.

TRANSPORTATION: Transportation will be provided in University vans. No private vehicles will be permitted.

FEE: \$60.00 includes all transportation, entrance fees, campgrounds and meals. The University will bill you for the \$60.00 course fee once you enroll in the class. Some students may be responsible for paying the additional course unit.

For MORE INFORMATION: Contact the office of Earth and Environmental Sciences Science 2 Rm 114 (278-3086), or just attend the following two mandatory classes:

1. Monday, February 9th, 5:00-7:00, Science 2 Rm 118 - (1) Preparatory meeting about logistics and itinerary, and (2) the first required lecture class on earthquakes and faults.
2. Monday, March 16th, 5:00-7:00, Science 2 Rm 118 - (1) Final meeting on logistics, and itinerary, and (2) the second required lecture class on California water resources and the San Joaquin-Sacramento Delta.

FIELD TRIP - Starts on Thursday, March 26th, 7:30 AM; ends on Sunday, March 29th 8 PM. We will leave from Parking Lot O, at the southwest corner of Maple and Barstow.