Geology 181: Geology of Sequoia and Kings Canyon National Park

Even though it lies in our own back yard, Sequoia and Kings Canyon National Parks are a national treasure. Their unique combination of alpine peaks, meadows, giant trees, granite outcrops, and glacial features gives the parks a rare beauty, and a marvelous opportunity to learn about geology that can be seen nowhere else in the world.

It should be understood that this trip will be a **rigorous** test of your patience and health. There will be several long drives, and conditions may become harsh, and **rain**, **snow,** and **extreme cold** are serious possibilities. The success of the trip will depend on your amiability and willingness to put up with inclement conditions.

Date: October 7-9, 2016
Leave Friday, October 7 at **7:30 AM**
Return Sunday, October 9 at about 7:00 pm

Cost: $40.00 payable in the business office (you **must** pay this fee to go on the trip)

Academics: 1 unit. Add code available from Garry Hayes, Science Community Center 336. **Space is limited**. Sign up early

Recommended Text: Exploration of the High Sierra (optional)

Academic Requirements:
BEFORE THE TRIP:

- You must attend the following organizational meeting:
  Thursday, Sept. 8, at 5:30 PM in SCC 326
- You must research and write a short synopsis (2 pages) of the geology of any of the following subjects:
  Granitic Plutons of the Sierra Nevada
  Alpine Glaciers
  Sequoia Big Trees
  Sequoia National Park
  Kings Canyon National Park
  Caverns of the Sierra Nevada

DURING THE TRIP:

- You will be expected to take complete lecture notes
- You will be expected to complete the worksheet provided at the beginning of the trip.

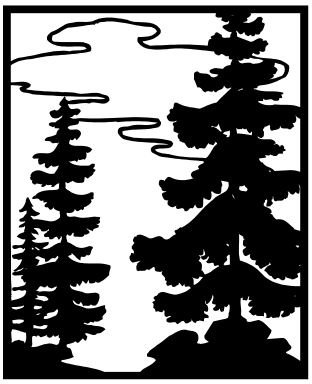
AFTER THE TRIP:

- Notes and worksheets are to be submitted by Thursday, October 18, at 5:30
- Final exam on Thursday, Oct.18 at 5:30 PM

Logistics:
You will be responsible for your own meals for this trip. I strongly recommend getting together with others to save money and space. Keep meals as simple as possible. For breakfast, it is best to use meals requiring only milk or hot water for their preparation. Lunches should consist of snacks that can be eaten all day. Dinners are easiest when they're out of a can! Expect to bring or buy dinner on Friday evening. You will need 2 dinners, lunches and breakfasts.

We will be camping out, and **cold temperatures** are highly likely. Snow and cold rain are possibilities. Please be prepared to be comfortable in these conditions. We will be doing some moderate hiking, so please bring adequate walking shoes as well. **No booze, alcohol, drugs allowed at school functions.**

Itinerary:



Friday, October 7: (WE LEAVE AT 7:30 AM; Don't be late)
Stops: Sierra Nevada Foothills
Crystal Cave Tour
Campsite: Lodgepole Campground (*tentative*)

Saturday, October 8:
Stops: Tokopah Valley Hike
Moro Rock Hike
Giant Forest Sequoia Trees
Marble Fork of Kaweah River/ Lodgepole area
General Grant Grove of Big Trees
Campsite: Cedar Grove area campground in Kings Canyon

Sunday, October 9:
Stops: Kings Canyon –Glaciers and River erosion
Big Stump Basin – Environmental issues
Return to MJC, approximately 7:00pm

Suggested Equipment

SPACE IS AT A PREMIUM: PLEASE PACK AS COMPACTLY AS POSSIBLE!

Personal:

Warm Sleeping Bag
Personal Toilet Kit
Eating utensils, cup, plate
Warm jacket or coat
Walking shoes
Changes of clothes
Sunglasses
Sunscreen
Clipboard, Pen, Pencils
Foam Pad
Day Pack
Poncho or rainsuit
Warm hat
Gloves or mittens
Flashlight (bring two)
Extra batteries
Toilet Paper
Paper

Group:
Tent
Cooking utensils
Stove
Cleaning supplies
Ice Chest
Lantern

Optional:
Camera
Rock hammer
Pillow and/or extra blanket
Folding Chair (if room available)
You may wish to bring some extra cash for junk food, maps, books, etc.

No booze, alcohol, or drugs.

Course Learning Outcomes:

By the time you finish this course, you will be able to:

a. Utilize the scientific method in reconstructing earth history on the basis of field relationships and observations.
b. Use basic geologic principles and examples of present-day processes to explain the geologic events of the past, as revealed by rocks and fossils in observed rock outcrops.
c. Identify common minerals, rocks, and fossils as located in field outcrops.
d. Interpret and categorize depositional environments of sedimentary rocks on the basis of field observations.