Death Valley Field Studies, 2015

What is it about? Death Valley is possibly the most spectacular geologic exposure in the entire western United States. The oldest rocks and fossils are found here, as well as rocks from every geologic era. The presence of recently active volcanoes and faults make it an ideal laboratory for the study of structural geology, and the unique animal and plant species allow us to understand adaptation and evolution in a harsh climate.

It should be understood that this trip will be a rigorous test of your patience and health. There will be several long driving days, and conditions may become harsh, with rain, snow and wind as serious possibilities (on the other hand, there is fair chance of working on your tan as well!). The success of the trip will depend on your amiability and willingness to put up with inclement conditions.

Dates: February 12-16, 2015: Please note: you will be missing class on Thursday night. Make arrangements now to make up any missed assignments.

Academics: 2 units. Add codes available from Garry Hayes, SCC 336. Fee is $50.00, payable at time of admission. Payments are made in the MJC Business Office in the Student Center (the fee is not charged when you enroll; you have to go to the business office). The fee must be paid before the trip.

Text (Recommended):
- Geology of Death Valley National Park by Miller and Wright (2nd edition is best)
- Geology Underfoot in Death Valley and Owens Valley, by Sharp and Glazner

Academic Requirements:

BEFORE THE TRIP:
- You must attend the organizational meeting: Thursday, Feb. 5 at 5:30 PM in Science Community Center Room 326 on West Campus
- You must research and write a short synopsis (2 pages) on some aspect of the geology of Death Valley National Park or the Mojave Desert. Topics might include the paleontology, mining and resources, or faulting. This synopsis MUST be submitted BEFORE the trip departure.

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 February 26
- Final exam on Thursday, Feb. 26 at 5:30 PM is SCC 326
Tentative Itinerary: (Stops and Campsites subject to change)

Thursday Evening: (leave at 5:00 PM)
   Drive to Bakersfield (200 miles)
   Campsite: Kern River County Park - (805) 861-2345

Friday, Feb. 13:
   **Stops:** Sharktooth Hill
   Redrock Canyon State Park
   Fossil Falls
   Cinder Cone
   Darwin Plateau

   **Campsite:** Stovepipe Wells or Tecopa Hot Springs, Death Valley. Note that flexibility on your part is needed: no reservations can be made, and in the worst case scenario, we might be camping in the middle of nowhere in the desert, without facilities. At best, camp facilities are somewhat limited: no tables or chairs. Fairly expensive restaurants and showers MAY be available nearby. See equipment list for recommendations.

Saturday, Feb. 14:
   **Stops:** Jubilee Pass Chaos and Aulacogen
   Cinder Hill
   Black Mountains
   Badwater, Fault Scarps
   Devil's Golf Course
   Death Valley Sand Dunes
   Mosaic Canyon

   **Campsite:** Same as previous night

Sunday, Feb. 15:
   **Stops:** Charlie Brown Outcrop
   Emigrant Pass
   Tecopa Lakebeds
   Gower Gulch
   Dantes View
   Titus Canyon or
   Ubehebe Craters

   **Campsite:** Same as previous night

Monday, Feb. 16:
   **Stops:** Mosaic Canyon
   Fossil Falls

   Route home will be by way of Bakersfield.
   Return to MJC, approximately 8:00pm
**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 Thursday evening. You will need 4 dinners, lunches and breakfasts.

We will be camping out and **there are no assurances that we will be in a campground every night.** Cold temperatures are **very likely.** Wind, 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 alcohol or drugs** allowed at school functions. Use of these substances is grounds for immediate removal from the trip and a long bus ride home at your expense.

You may wish to bring some extra cash for junk food, visitor center trinkets, or other items essential to survival.

**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 (layers)
- Walking shoes
- Changes of clothes
- Sunglasses
- Sunscreen
- Clipboard, Pen, Pencils
- Towel
- Lip balm
- Foam Pad
- Day Pack
- Poncho or rainsuit
- Warm hat
- Gloves or mittens
- Flashlight (two)
- Extra batteries
- Toilet Paper
- Paper
- Canteen
- Ground cloth

**Group**
- Tent
- Cooking utensils
- Stove
- Cleaning supplies
- Ice Chest
- Lantern

**Optional:**
- Camera
- Extra blanket
- Small pillow
- Rock hammer
- Small folding chair