

**THE GEOLOGY OF DEATH VALLEY AND ENVIRONS**  
**2006 GEOLOGY DEPARTMENT SPRING BREAK FIELD TRIP**  
**GEOLOGY 360 001C: 2 CREDITS**

- Instructor: Dr. Jennifer Wenner  
E-mail: [wenner@uwosh.edu](mailto:wenner@uwosh.edu)  
Office: H107  
Phone: 424-7003
- Time: Thursday 4:10-5:40 (during the semester) and March 10-18, 2006
- Texts: Geology Underfoot in Death Valley and Owens Valley (Sharp and Glazner, 1997)  
Field trip guidebook for Death Valley (Wenner, 2005)
- Other Supplies: Field book (hard-back, waterproof; will be provided as part of the cost of the trip), No. 3 pencils, colored pencils, calculator, protractor, compass (available from Department)
- Grading: Grades will be based on:
- Evaluation of your field notebooks;
  - Evaluation of your Guidebook exercises; and
  - Your overall performance on the trip.
  - Dr. Wenner will assign your grades. Methods of keeping an accurate field notebook will be covered in one of organizational meetings prior to our departure.
- Pre-Trip Meetings: The first organizational meeting will be held Thursday, February 2, 2006, at 4:10 p.m. in Harrington 217. Subsequent meetings will be arranged once we get the GeoClub schedule arranged.
- Transportation: Midwest Airlines flights from Milwaukee to Las Vegas are non-stop flights. Ground transportation from Oshkosh to Milwaukee will be by UWO vans. Ground Transportation while in Nevada and California will be by rental vehicles, in caravan.
- Course Objectives: Your objective for this course should, at a minimum, include the following:
- To learn how to make geologic observations in the field and to systematically record them in notes and on maps;
  - To learn how to interpret field data;
  - To accomplish the two above objectives in the forms of a written field book and completed guidebook exercises (including small maps, sketches, and problem sets)
  - To gain an understanding of the volcanological, hydrogeological, and tectonic processes which have led to the formation of the Basin and Range
  - To gain an appreciation for the beauty and fragility of the geological features of Death Valley and environs.
- Estimated Costs: The estimated cost per individual for this course includes the following:
- |                     |                                 |              |
|---------------------|---------------------------------|--------------|
| • Transportation    | (Airline ticket to Las Vegas)   | \$400        |
|                     | (Van rental and gas per person) | \$160        |
| • Fees              | (camping, permits, etc.)        | \$100        |
| • Self cooked meals | (\$7.00 per day / 7 days)       | <u>\$ 50</u> |
|                     | <i>Total</i>                    | <i>\$710</i> |

Other costs are largely up to you. Death Valley has several stores in which you can acquire t-shirts and thousands of kitsch-y items. In addition, Death Valley Visitor Center sells a wide variety of impressive publications on geology, natural history, wildlife, etc.

Payment:

The balance is due by January 4. Payments should be made to the Cashiers Window in Dempsey Hall; you should request that the payment be deposited in the Geology Spring Break Field Trip Account – Wenner (account number 128-034584-2). Checks should be made out to the University of Wisconsin-Oshkosh.

Equipment:

In March, the weather in Nevada and Eastern California can be somewhat unpredictable. Depending upon the amount of snowfall the area received during the winter months, we may find considerable amounts of snow in the higher elevations and on some trails that we will be visiting. It is best to be well prepared.

I am including a "Suggested Equipment List", to help you to pack. Two extremely important items are rain gear and something to break the wind. Alt(Stemperatures may range from as low as 20°F to over 90°F during our excursion. In addition, we are likely to encounter rain and/or snow during the course of our trip. Bring at least three changes of clothes for the trip. At least one of these changes of clothes should be capable of keeping you comfortable in extreme cold/wet conditions (e.g., waterproof/windproof jacket, long pants, wool socks and closed toed shoes). Another should be capable of keeping you comfortable in extreme heat/sun (e.g., cool long sleeved shirt, hat with a brim, shorts or lightweight pants). It would be prudent to bring along a pair of boots (once your feet get cold your mind will stop thinking about geology).

Because we will be at high elevation, the sun's rays will be quite strong on sunny days. These rays, coupled with any reflections from snow still present or bright white salt, can and will cause sunburns if you are not adequately protected. Bring along a hat, a pair of sunglasses and sunscreen to protect you from the sun's rays. Lip balm is also a good idea.

In addition, the following items are essential or are highly recommended:

- Sturdy leather hiking boots (or work boots) are a necessity. Bring at least two pairs of footwear of which at least one pair is leather boots.
- Try to be as efficient as possible when selecting clothing. Remember that at least 5 of us plus gear must be able to fit inside each of the vans. **Pack everything** except your tent (optional) **in one duffel bag or internal frame backpack (soft sided luggage is much easier to pack in the vans).**
- Bring along water bottles and/or a canteen capable of carrying at least 2 quarts of water into the field.
- A good, warm sleeping bag is also essential. We will be camping often during the trip. During this time of the year, temperatures as low as 20°F may be encountered during the night. Also bring along a sleeping pad or air mattress (this will let you sleep more comfortably, and will insulate you from the cold ground)
- Several items of geological field equipment are essential. These include a hand lens, ruler, protractor, pencils, and colored pencils.

- If you bring along a rock hammer, remember three things: a) you will not be allowed to take geological samples in Death Valley National Park (this is a crime); b) when collecting samples outside the park, safety glasses must be worn at all times when using a hammer; and c) you must pack this in your CHECKED luggage – I have been on too many trips (even before September 11) where rock hammers have been confiscated when going through security.

### Health:

If you take any special medications, make sure to bring them along for the trip. No special immunizations are required, but it's always a good idea to be up to date with your tetanus vaccine– shots are available in the Health Services.

Insects should not be a serious problem during this part of the season in Eastern California. On warm days we may encounter flies, mosquitoes, and some types of spiders. We may encounter scorpions while in the desert. These scorpions are not the kind whose stings are lethal – people often react similarly to a bee sting or a spider bite. Do not dig under rocks or trees with bare hands to avoid being bitten by insects. Over the counter insect repellants should be adequate for our excursion.

Rattlesnakes do reside in many of the areas that we will visit. The snakes prefer sunny rock outcrops and may be in plain view during the warm parts of the day. You probably won't see any snakes, but you should observe the following precautions:

- while walking, skirt around possible hiding places for snakes;
- make sure you can see where you step or put your hand before you make your move.

Keep your eyes open a little bit wider than you might be accustomed to during the trip. Also be prepared to warn others near you of imminent dangers.

Dehydration can be a problem on warm days, days with constant winds, or on sunny days when we are hiking. The desert is a very dry place and often you will not realize that you are becoming dehydrated. Drink plenty of fluids (at least 2 quarts during the field day), and limit your intake of coffee, if possible. Drink water consistently all day to ensure you are well hydrated.

Sunscreen will be necessary to reduce the hazards of high altitude solar radiation.

Rock climbing is not permitted during our trip; climbing on steep outcrops without proper gear will be grounds for dismissal from the trip. Do not attempt any climbing or walking on steep slopes whether you are with the group or not. We will not be attempting any steep climbs during the trip. When we hike on trails, be careful about dislodging rocks that may fall on you or people adjacent to you. During hikes, you may feel that the pace is too fast – if this is the case, don't push it – stop and rest because we will have plenty of time to investigate our final destinations.

It is critically important when hiking in Death Valley (and other places) to stay on the trails or boardwalks provided. It is also extremely important to obey the signs for areas that are closed due to wildlife or ecological concerns. The desert can be extremely fragile – some plants can take years, decades or even centuries to grow.

Travel:

With three vans traveling in caravan, we will need every effort to stay together. One person in each van will be in charge of organizing such things as meals, drivers, packing, etc.

Cooking Groups:

Cooking groups will be formed at our first organizational meeting. Meals should be planned and food purchased at least two days at a time, *and the planning must occur before we arrive at the grocery store in order to minimize the time we spend shopping.* A portion of your tuition for the course will be given to each cooking group in order to offset the cost of groceries. You should plan on spending about \$5 per person per day on food.

University Hold  
Harmless Form

Please complete this form and return it no later than the date of your initial down payment, March 15. This form serves two purposes: a) it provides the trip leaders with your health insurance information; and b) it constitutes an acknowledgement by you that this sort of course involves particular risks beyond those of classroom instruction as well as a promise by you that you will take all appropriate precautions to avoid unnecessary risk in this situation.

## Itinerary for Geology of Eastern California, Spring Interim, 2002

<b>Date</b>	<b>Activity</b>	<b>Lodging</b>	<b>Sharp and Glazner</b>	<b>Maps / reading in field guide</b>
<b>Friday March 10, 2006</b>	Travel from Oshkosh to Las Vegas –Midwest NW flt 811 -- MKE to LAS (dep: 7:45 pm, arr 9:30 pm) -- Stay in Las Vegas	Motel 6	Introduction	Introductory Chapters (Day 1)
<b>Saturday March 11, 2006</b>	Drive to Death Valley <i>via</i> Resting Spring Pass & Southern Death Valley	Camping*	3, 2, 5, 6, 8, 9	Southern Death Valley (Day 2)
<b>Sunday, March 12, 2006</b>	Central Death Valley	Camping*		Central Death Valley (Day 3)
<b>Monday, March 13, 2006</b>	Ubehebe Crater, Racetrack, Scotty's Castle	Camping*	15, 16	Ubehebe and Racetrack (Day 4)
<b>Tuesday, March 14, 2006</b>	Dunes, Mosaic Canyon	Camping*	13, 14	Dunes and Mosaic Canyon (Day 5)
<b>Wednesday, March 15, 2006</b>	Owens Lake, Mt. Whitney, Manzanar	Hotel (Bishop, CA)	18-20	Water issues and The Sierra Nevada, etc (Day 6)
<b>Thursday, March 16, 2006</b>	Bristlecones and/or Long Valley Caldera/Hot Springs	Camping*	21 & 22 or 23 & 27	Bristlecones OR Long Valley Caldera (Day 7)
<b>Friday March 17, 2006</b>	Nevada Test Site, Hoover Dam (Leaving Las Vegas ~midnight)			Hoover Dam etc. (Day 8) Maps 61, 75
<b>Saturday, March 18, 2006</b>	Arrive in Milwaukee (Midwest flight 812, dep LAS 11:59pm (3/17), arr MKE 5:14am)		19, 20	

\* Camping at Furnace Creek Group Campground (Death Valley National Park)  
Ranger station phone number: (760) 786-3200