

2012 GEOLOGY DEPARTMENT SPRING INTERIM FIELD TRIP
51-360: 2 CREDITS

DINOSAURS, EXTINCTIONS, AND ENVIRONMENTAL CHANGE: MESO-CENOZOIC STRATIGRAPHY
AND PALEONTOLOGY

INSTRUCTOR: Dr. Joseph Peterson EMAIL: petersoj@uwosh.edu OFFICE: H211 PHONE: 920-424-4463
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TIME: Spring Interim, 2012: May 14 – May 28, 2012

TEXT: Guidebook to Meso-Cenozoic Stratigraphy: Dinosaurs, Extinctions, and Environmental Change

OTHER SUPPLIES: Field book (hard-backed, waterproof), No. 2 pencils, colored pencils

GRADING: Grades will be based on my evaluation of 1) your work and performance on the trip, 2) your notes, sketches in your field book, and 3) your group poster presentation in the field. Details of the poster and presentation, and methods of keeping an accurate field notebook will be covered in one of the organizational meetings prior to our departure.

PRE-TRIP MEETINGS: The first organizational meeting will be held in late March. A second meeting will be held in April.

TRANSPORTATION: All transportation will be by University fleet vehicles, in caravan.

COURSE OBJECTIVES: To learn:

1. To make geologic observations in the field and systematically record them in notes and on maps;
2. How to interpret field observations in terms of origin of rock, structures, and landforms and the geologic history they represent;
3. How to identify stratigraphic units and measure stratigraphic sections;
4. How to identify depositional environments represented by sedimentary rocks and sedimentary structures;
5. How to prospect for, identify, excavate, and collect vertebrate fossils, and interpret taphonomic processes indicated by fossil characteristics;
6. The general geologic history of the Mesozoic era of the American west.

ESTIMATED COSTS: The estimated cost per individual for this course include the following:

Transportation	(4500 miles/vehicle)	\$420
Fees	(camping, permits, etc.)	\$30
Self cook meals	(\$10.00 per day/14 days)	\$200
Misc Equipment	(tools, supplies, etc.)	<u>\$50</u>
	<i>Total</i>	\$700

The principle variable in the cost estimate is the number of people in each van. Should actual expenses be less than this, you will receive a refund this summer; if they are greater (I do not anticipate this) I will have to bill you for the balance. Food costs can be reduced by spending less than indicated. We will organize food teams at one of the organizational meetings. Other costs are largely up to you.

PAYMENT: For planning purposes, you are required to make a non-refundable deposit (emergency exception) of \$350 by April 9th. The balance is due by April 29th. Payments should be made to the Cashiers Window in Dempsey Hall; you should request the payment be deposited in the “Geology Spring Interim Field Trip Account – Peterson” (account number 128-034582-2). Checks should be made out to the University of Wisconsin-Oshkosh. **You must keep your** receipts and give a copy to Dr. Peterson.

EQUIPMENT:

We will be traveling through varied countryside (mountains to deserts). Days will probably be warm and nights cool to cold (especially in the badlands). It is best to be well-prepared.

- Plan to protect yourself from the sun with long sleeves, long pants, a hat, a pair of sunglasses, and sunscreen. Lip balm is also a good idea.
- At the Cleveland Lloyd Dinosaur Quarry, biting flies are commonly in high abundance in the spring. Bug nets and spray are highly recommended.
- Sturdy leather boots are a necessity. Bring at least two pairs of footwear; at least one of which is boots.
- A pair of sturdy work gloves.
- Try to be as efficient as possible when selecting clothing. Remember that space is at a premium in the vans and SUV. **Pack everything that you bring** (except for sleeping bag and tent) **in one duffle bag.**
- 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 and sleeping pad.
- In terms of geologic equipment, you should bring a hand lens. You are not required to bring a rock hammer, but it is recommended. If you bring one, safety glasses are required.

Other suggested supplies: I will give you a list that we will discuss at our first meeting.

HEALTH:

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

Biting, stinging things (scorpions, tarantulas, black widows, brown recluses) are all likely present. The chance of you being bitten is remote, unless you dig under rocks, logs, etc with your bare hands.

Rattlesnakes are present, but often find cool shady spots during the day and aren't active. They are more commonly active at night. You probably won't see any snakes, but should observe the following precautions:

- a) Avoid walking around the desert or badlands at night. Use a flashlight when walking after dark.
- b) While walking, skirt around possible hiding places for snakes (bushes, etc).
- c) Make sure you can see where you step or put your hand before you make your move.
- d) Don't tiptoe; snakes cannot hear but can feel vibrations. If you walk with regular force, but watch where you are stepping, any local snake will likely move out of the way.

Heat exhaustion/Dehydration is always a concern in arid areas. We can avoid problems by taking the following precautions:

- a) Drink plenty of water. Limit "dehydrating beverages" (things with caffeine). Be sure you have at least 2 quarts of water with you in the field and drink it all.
- b) Wear light-weight, loose-fitting cotton clothes.
- c) Be sure to eat adequate amounts of salt.
- d) If you begin to feel dizzy, feel cold shivers, or get muscle cramps, nausea, or a sudden unusual headache, stop what you are doing and notify me immediately!

Sun screen will be necessary throughout the trip due to high solar radiation levels at higher elevations.

Rock climbing is not allowed during the trip. Do not attempt any climbing or walking on steep slopes whether you are with the group or not. We will, in general, not attempt any steep climbs. When we do walk on slopes, be careful about dislodging rocks that may fall on you or people adjacent to you. During hikes, if you feel that the pace is too fast – don't push it! – stop and rest because we will never be in a huge hurry.

DRIVING: If you would like to help with the driving and have a good driving record, pick up a driver authorization form, complete it, and return it to me. There are no age restrictions for driving the minivans.

TRAVEL: With vehicles traveling in caravan, we will need every effort to stay together. One person in each vehicle will be in charge of packing, drivers, organizing, etc.

COOKING: Cooking groups will be formed at our April organizational meeting. Meal 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 spent shopping. A portion of your tuition for the course will be given to each cooking group in order to offset the cost of groceries.

UNIVERSITY HOLD HARMLESS FORM: Please complete this form and return it no later than the date of your initial down payment, April 9th. This form serves the following purposes: it constitutes an acknowledgement by you that this sort of course involves particular risks beyond those of the common classroom setting as well as a promise by you that you will take all appropriate actions and precautions to avoid unnecessary risk in this situation.

INSURANCE INFORMATION: All students participating in this trip must have health insurance. If you do not currently have insurance, you can purchase a short-term policy for the duration of the trip. I will need a copy of each student's health insurance information, along with emergency contact information by the April meeting. I will make copies of this information and we will carry it in each van.