

GEOL195D: Field Studies in Geology—Colorado Plateau Region (#51111)

Sunset Crater, AZ to Dinosaur National Monument, Utah

May 25 - June 1, 2016

Course Detail Sheet

Who May Come?

Only persons registered in GEOL 195D (#51111) may participate in this course. Prerequisites: students must have taken Geology 100, Geology 110, or equivalent experience at the instructor's discretion.

General Trip Logistics

This is an 8-day, 2-unit field course. The approximate total driving mileage for this trip from Palomar College is 2650 miles. The trip begins at Sunset Crater, AZ (near Flagstaff) and ends at Dinosaur National Monument in Utah. This trip will travel through remote areas and include several stops each day.

- Students must carpool with a minimum of 2 students per car. Besides sharing gas costs, there are several places with entrance fees and limited parking. A list of e-mails and phone numbers of enrolled students will be kept on BlackBoard. Use this list to arrange rides.
- Each car must use a 14-channel 2-way radio to aid in communication; we have several to lend out. Students must make sure to listen to radio transmissions for directions as we travel.
- Each car should have a good set of maps and/or Garmin-type navigation device. Note that you may or may not have reception on your mobile device during the trip. However, some areas have no service or limited coverage. Detailed directions with mileages to field trip stops will be provided. Helpful maps include (both may be found on amazon.com):
 - AAA City Series state maps (AZ, UT, CO) provide road detail and may be very helpful.
 - Indian Country Guide Map
- Plan your trip home. The course officially ends near Dinosaur National Monument in the late afternoon on June 1. The drive home is approximately 860 miles and will take between 12 and 13 hours. A group campsite has been reserved for the night of June 1, so you may stay overnight and begin the long drive home on June 2. The drive home is largely on I-15.

Vehicles

Most of the trip is on paved streets. We will travel some distances on well-maintained unpaved/graded roads. Low-clearance vehicles are not appropriate. High clearance vehicles are recommended and are advised in some areas; we will plan to carpool in these areas. Your vehicle must be in good mechanical condition with a good set of tires and a spare tire. If your vehicle breaks down, we will make sure that you are safe and that help is on the way. Otherwise, the field trip will continue.

Driving

All drivers must have a valid driver's license and proof of insurance. Please be very careful while driving. Be sure to obey all traffic regulations. Pay attention to the car in front of you. Your passenger should be the navigator to keep track of directions and maintain radio contacts. Be sure you do not block the road when we stop. **Never pass the instructor** (lead vehicle) unless specifically told to do so.

Gas

Gas will not always be readily available; designated stops for gas will take place during the day. Students should make sure to top off tanks each time marked on the itinerary. Distance between fuel stops will be no more than 200 miles.

Food & Liquids

Students are responsible for their own meals. You should plan to have food available to make breakfast, lunch, and dinner. Note that we will be on a schedule, so do not plan big "family camp breakfasts." Make sure to have snacks for hiking. Make sure to have plenty of water/liquids that will help you rehydrate during the day; limit sugary drinks and **No Alcohol**. In some places we will be in areas with access to restaurants. We will make stops for ice and groceries so you don't have to pack for the full trip.

Accommodations

Your \$100 fee paid to the cashier in advance covers the cost of shared campsites throughout the trip. Information on each night's accommodations is provided below to help you with your planning. You may reserve your own spot through Reserve America: <http://www.reserveamerica.com/>. Please let us know if you reserve a campsite and want to share. Areas with lodging/hotel options nearby are also noted.

- **Wednesday May 25—Lee's Ferry Campground:** Campsites are first come first served to be shared by instructors and students. High winds are possible so be sure to bring adequate tent stakes. Restrooms/showers available. *(Optional campsites in the area have been arranged in case Lee's Ferry is full)*
- **Thursday May 26—Grand Canyon Northrim:** A group campsite has been reserved. Restrooms/showers available. Restaurant/camp store nearby. Hotel option at Grand Canyon North Rim Lodge.
- **Friday, May 27—Bryce Canyon National Park:** A group campsite has been reserved. Restrooms/showers available. Food options are available in the nearby entrance to the park.
- **Saturday, May 28—Starr Springs:** A group campsite is available on BLM land. This is a beautiful campground with lovely scenery, however, there are no amenities. Bring appropriate supplies (it's only 1 night).
- **Sunday, May 29—Horsethief Campground:** Campsites has been reserved by the instructors. Restrooms available. Food/hotel options are available in the town of Moab approx. 30 min. Note that this is Memorial Weekend; the area will be very crowded and lodging will be expensive.
- **Monday, May 30—Devil's Garden Campground:** A group campsite has been reserved. Restrooms available. Food/hotel options are available in the town of Moab approx. 30 min.
- **Tuesday, May 31—Dinosaur National Monument:** A group campsite has been reserved. Restrooms/showers available. Food/Lodging options in Vernal, UT, approx. 30 min.
- **Wednesday, June 1—Dinosaur National Monument:** A group campsite has been reserved. Restrooms/showers available. Food/Lodging options in Vernal, UT, approx. 30 min.

Weather

Weather on the Colorado Plateau is quite variable depending on elevation. Most areas are considered "high desert." Daytime temperatures should range between 70°F and 90°F; low temperatures will typically be between 50°F and 60°F but could be near freezing in Bryce Canyon, at an elevation of 8000 feet. Bring layers of clothes and a jacket. May is typically dry, however afternoon thunderstorms may occur. Bring a rain poncho just in case.

Hiking & Walking

We will be doing several short hikes (up to 2 miles) over rocky, sandy and uneven terrain. None of the hikes are too difficult, but have good walking shoes or light hiking boots. The Colorado Plateau does vary in altitude; we will be hiking at altitudes between 5000 and 8000 feet which will add to the difficulty.

Expenses

Besides the cost of registration for the 2-unit course, major costs for this field course include gas, campsites, and miscellaneous park entry fees. The total cost has been estimated to be approximately \$270 per student. The cost is based on sharing of expenses in a carpool of 2 students; students carpooling with 3 or more will have significantly decreased costs. Note that estimated costs do not include food. A \$100 fee will be pre-paid to the Palomar Cashier before registration. This fee will cover the cost of campsites for 8 nights beginning Wednesday May 24. Campsites will be shared among students to the capacity of the site (ex. 6 per site). The remainder of the cost (gas and entry fees) will be paid by students on the trip. The major expense during the trip will be gas and food. Gas prices outside CA are around \$2.25 per gallon. Each vehicle will need a National Parks Visitors Pass (\$80). You should bring some small bills (\$1's and \$5's) to deal with miscellaneous State park entry fees. To diminish the expense the costs are to be shared among students in the carpool.

Potential Hazards

Please be aware of your surroundings at all times. Be especially careful about the following:

- Footing—many trails will have steep sections or stairs. Cliff edges are also unstable. Be careful of your footing and stay on trails and behind guardrails. Stay at least a body's length away from the edge of any cliff.
- Sunburn—UV rays at high altitudes are very intense. Bring and use sunscreen; wear a hat.
- Dehydration—daytime temperatures will generally be warm; humidity will be low. Make sure to drink lots of water.
- Altitude—the highest areas will be around 8000 feet; altitude sickness is not typically an issue, but may cause headaches and shortness of breath.
- Snakes—this would be a rare encounter on this trip, but be careful.

Grades

Your grade will be based on your participation, field journal, and final portfolio of completed activities. Students who participate in all course activities will automatically be given a "C". Students that complete the field journal and turn in the final portfolio will be graded based on the content of these two items.

Textbook

"Geology Unfolded: An Illustrated Guide to the Geology of Utah's National Parks" by Morris, Ritter, and Laycock, 2010. This text is not comprehensive but provides an overview of key concepts in a highly visual way. This book is available at Amazon.com for a variety of prices from \$14.37.

Student Code of Conduct

Palomar College considers field courses an extension of the classroom, therefore all rules that you must abide by on campus are in effect on our trip. DO NOT BRING ALCOHOL, DRUGS, OR FIREARMS. Do not bring anything that may be construed as a weapon. Any student who behaves in an inappropriate manner that disrupts learning or causes potential harm to themselves or anyone in the group will be asked to leave the trip immediately, referred to the Director of Student Affairs, and receive an "F" in the course. The Complete Student Code of Conduct for Palomar College can be found at:

<http://www2.palomar.edu/pages/studentaffairs/home/student-discipline/>

Other items to make the trip run smoothly:

- Be prepared to learn.
- Listen carefully to all directions.
- Be ready to leave camp at designated times.
- Do not use iPods or cell phones during stops.
- Do not play loud music at stops or in camp.

What to Bring (besides basic camping stuff*)

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| <input type="checkbox"/> Plastic Folder (with multiple pockets) for handouts | <input type="checkbox"/> Camera |
| <input type="checkbox"/> Composition Notebook | <input type="checkbox"/> Hat & Sunscreen |
| <input type="checkbox"/> Mechanical and Colored pencils | <input type="checkbox"/> Shoes/boots for hiking |

*A more detailed list of camping gear is posted on Blackboard.

How do I Register?

Registration is by Permission Code only. In order to obtain a permission code and enroll in this field course, you must prepay a trip fee of \$100.

Step 1. Print out the Student Information Packet. Complete the following documents and submit them to the Earth Science Department Assistant (NS-110-G): **Waiver, Student Information Sheet, Driver/Rider Information Form.**

Step 2. Take the payment form to the Palomar College Cashier's Office received from the Department Assistant (only after all documents are turned in) and make a payment of \$100. The trip may be paid for by cash, check, or credit card (Visa or MasterCard). Please fill in your name and Palomar ID number on the form below and give it to the cashier when you make your payment. Make sure the Cashier returns the form to you!

Step 3. Bring the payment form and the cashier's office receipt to Professor Figg (NS-110L) or Professor Deen (NS-110E) to obtain a permission number to use to enroll in the field course.

Step 4. Enroll in the course through Palomar E-Services (You may only enroll after paying for the course. You must enroll ASAP after receiving your permission number as spots are limited.)

The first 24 students who have paid and enrolled will be allowed to participate in the trip. The deadline to enroll is May 18.

If you have any questions, call/e-mail

Patty Deen (760) 744-1150 x2519 pdeen@palomar.edu or

Sean Figg (760) 744-1150 x2513 sfigg@palomar.edu