

To: UNM and non-UNM students interested/planning on enrolling in the EPS Geology Summer Fieldschool (EPS 319L and/or 420L) in Spring/Summer 2009

From: John Geissman and Karl Karlstrom

EPS 319L is "Introductory Field Geology" and the primary instructor is John Geissman. EPS 420L/520L is "Advanced Field Geology" and the primary instructor is Karl Karlstrom. Note that EPS 420/520 is available for either undergraduate or graduate credit.

This communication will hopefully answer most of your questions about plans for EPS 319L and 420L/520L for 2009. All of you have either received a copy of a brochure we sent to many geoscience departments, or read about our program on the UNM EPS website: (<http://epswww.unm.edu/field>). **In order to secure you place in the course, your deposit of \$425 for 319 and/or \$800 for 420 will need to be received on Monday April 13, 2009.** See our web pages at <http://epswww.unm.edu/field> for application and registration procedures and "timelines".

ACCOMMODATIONS WHILE IN ALBUQUERQUE: For non-UNM students in both courses, we will arrange hospitality with local students for the nights we are in Albuquerque.

REGISTRATION: All applicants must comply with the timelines associated with the course (<http://epswww.unm.edu>). Tuition will be about \$800 per course, plus course fees of \$425 for 319 and \$800 for 420. Non-UNM students are required to apply for non-degree status to enroll in the course. The appropriate form (<http://www.unm.edu/~ndc/>) must be completed and turned in by Wednesday March 28, 2007. Please refer to the timelines for additional sites and information.

DATES FOR 319: We are planning an introductory meeting for EPS319L on Sunday, May 17, 2009, at NOON, in room 116, Northrop Hall. The meeting is required, and will last about 2½ hours. We plan to introduce the general nature of the 319L course, describe some of the teaching philosophies that we will be applying, and begin to discuss the geology of the Land of Enchantment and environs! Our first exercise will begin at 7:30 AM, Monday, May 18, 2009. Please meet, prepared for a full day in the field, at the G Parking Lot on University Blvd, north of Lomas Blvd and south of Indian School Road. The course will end no later than Saturday evening, June 6, 2007, when we return from south-central Colorado, the site of our last field project. During this time period, please understand that you are to make essentially no daytime commitments. The tentative schedule is as follows:

- Project 1: San Ysidro area, May 18-20, based out of Albuquerque. Map compilation, report preparation on May 20.
- Project 2: Baca Canyon, May 21-23, camping out. Map Compilation, report preparation May 24.
- Project 3 and 4: Huerfano Park area, May 25-June 4. Third project due on May 31; final project due on June 3.

You will have a limited time "off" during this period. For our guests flying in from other locations, please plan to arrive no later than Sunday, May 17, before noon. Please provide John Geissman with your flight information, so we can schedule van pickups at the airport for all of you. For those students who are only taking 319L, you may schedule your departure anytime after 5:00 PM on Saturday, June 6. Note that it might be easier, to avoid being rushed, to be able to chill at a good watering hole in ABQ, etc., to schedule a return early on June 7.

DATES FOR 420/520: We are planning an introductory meeting for EPS420/520 on Monday, June 8, 2009, at NOON, in room 116, Northrop Hall. The meeting is required, and will last about 2½ hours. We plan to introduce the general nature of the 420/520 course, expanding on what you have learned in 319. Geology 420 will leave Albuquerque at 7 AM Tuesday, June 9, 2009 for the first project. The course will end June 30, 2007. During this time period, please do not make other daytime commitments. The tentative schedule is as follows:

- Project 1: Abo Pass – Rio Grande Rift: Laramide and Proterozoic mapping – June 9-13.
- Project 2: Grand Canyon river trip: Float from Diamond Creek to Lake Mead – June 14-20. All projects due in the field.
- Project 3: Tusas Mountains of New Mexico: mapping of Proterozoic rocks; structural studies and research on Proterozoic Tectonics – June 21-28. Third project finishes June 28 by early afternoon.

For students who are just taking 420, please plan to arrive no later than Sunday evening, June 7, 2009. Please provide us with your flight information, so we can schedule van pickups at the airport for all of you. You may schedule your departure anytime after noon on Monday, June 29.

PERSONAL GEAR: Please be well-prepared for any kind of weather and plan for extreme variations. Both courses have gone from hot (104°) to cold (snow, hail, sleet, wind, rain) over the period of a week! This summer, however, we hope that the temperature will be 78° every day, with a few clouds in the sky, clearing by early evening, but be prepared for anything.

Dehydration in the high desert and mountains can be a serious problem. Please have at least four (4) liter size, sturdy water bottles. Most projects will be in warm to hot, DRY places at variable elevations. Most if not all mapping areas are devoid of streams from which to filter water.

PERSONAL VEHICLES: You are allowed to take personal vehicles on the two overnight trips during 319L, as long as the instructors are notified in advance and you partner with at least one other colleague from 319L. Please note that these should be high clearance vehicles. Total mileage for both trips is about 700 miles. No personal vehicles are allowed in 420L/520L.

MEALS: The first few days of EPS319L will be based in Albuquerque, so lunches should be brought with you on each of these days. The rest of 319L and all of 420L will involve extended overnight camping excursions (3 to 9 evenings out per excursion). You are responsible for all meals during these excursions (except the river trip in 420L—where the food is provided from the course fee), and we strongly suggest grouping up for evening meals and that you form "cooperatives" for buying food in town, and cooking meals while in the field, to save money, time, and aggravation. During the two field excursions in 319, there will be two instructor-provided group meals the evenings that projects are due. The Department will provide Coleman propane stoves, lanterns, water containers, and some coolers for your use. If you wish to bring your own stove, cooler, lantern, and water containers, should you have them, fine. We may be able to provide some pots and pans, etc., but we urge that you provide your own cooking gear. You should provide coolers, if at all possible.

ALCOHOL: The consumption of alcohol in a University vehicle is absolutely forbidden. You may bring alcoholic beverages on camping trips, but they must be kept in coolers or other enclosed spaces at all times while we are driving. (Understand that EPS 319L and EPS 420L are tests of your performance IN THE FIELD; we do not want you waking up some/most/all mornings feeling awful/blurred/etc., as the instructors will not be sympathetic and will not have enough good coffee to take care of such ills.)

DRUGS AND MEDICATIONS: The possession/ use of illegal drugs on a University field trip is forbidden by law. We must know of any illnesses or physical concerns each student may have and the medications each student may be taking and for what reason.

GUNS AND/OR GENERATORS: Do not bring guns or electrical generators, of any kind. Immediate dismissal from, and/or failure of, either field course is the likely result.

INSURANCE: You must be covered by some form of accident and injury insurance before you will be allowed to participate in these field courses. On Sunday, May 13th, you will be requested to fill out an insurance form, and, if necessary, we can provide insurance for the duration of each course. Your own personal insurance should cover you on these courses (you need to provide the name of the insurance company and the policy number).

INSTRUCTORS: John Geissman (jgeiss@unm.edu, 505-277-3433) is the principal instructor for EPS319L and Karl Karlstrom (kek1@unm.edu, 505-277-4346) is the principal instructor for EPS420L. Grant Meyer (gmeyer@unm.edu, 505-277-5384) will assist with EPS319L, and Laura Crossey (lcrossey@unm.edu, 505-277-5349) will assist with EPS420L.

EQUIPMENT AND SUPPLIES, EPS 319L/420L/520L

(suggested items in *italics*)

Your Responsibility:

- ✓ adhesive tape
- ✓ *belt pouch (for notebook, pencils, pens, etc.) (or equivalent, such as a field vest)*
- ✓ calculator, pocket
- ✓ color pencils
- ✓ erasers (thousands)
- ✓ field (map) case (12" x 12") (available for sale)
- ✓ hammer (geologists)
- ✓ hand lens
- ✓ *ink pens (waterproof)* (e.g. "rapidograph" type [KEK prefers Rotring] as well as fine soft-tip). Several points of different widths, starting with a 00 point and going up to a 3.0. For 319L, you are **not required** to ink final products.
- ✓ paper, lined
- ✓ paper, scratch
- ✓ pencils, 2H to 6H
- ✓ pencil sharpeners (get several)
- ✓ protractor/ruler combination (6", clear, **get at least three**; these will be available for sale)
- ✓ triangle, drawing

Personal (field-related) (BE PREPARED FOR COLD, HOT, WET, AND/OR DRY CONDITIONS, AS CLIMATE CHANGE IS UPON US AND ALWAYS WILL BE !!!!! AND BESIDES, IT'S NOW GEOLOGICALLY PROVEN):

- ✓ water bottles (at least **four** one-quart **sturdy** containers)
- ✓ first aid kit (small, personal)
- ✓ flashlight (late nights in the field, protection from the TA's)
- ✓ hat, handkerchief, gloves, etc.
- ✓ insect repellent
- ✓ pocket knife
- ✓ rain gear (light weight and very waterproof)
- ✓ sturdy knapsack, with a moderate to heavy internal frame(capable of holding raingear, a gallon of water, neat rocks, extra pair of socks, sunscreen, LUNCH, personal first-aid kit, etc., walkperson with numerous Grateful Dead tapes)
- ✓ sunscreen (lots and waterproof)
- ✓ sturdy, broken-in boots (not sandals, although sandals are OK for end of day—watch for cacti)
- ✓ sunglasses
- ✓ watch
- ✓ books (non-geologic in nature for late-night reading--Jack Kerouac, Wallace Stegner, Edward Abbey, latest Grateful Dead Almanac, etc.)
- ✓ poly-pro long underwear
- ✓ tent, sleeping bag, foam pad
- ✓ frisbee, h-sack, football, etc.....
- ✓ cooking gear/personal eating gear

Provided:

- ✓ first aid kit (large)
- ✓ aerial photographs (if necessary)
- ✓ Brunton compasses
- ✓ New Mexico highway geologic map
- ✓ "guidebook" for each course, with abundant reading material
- ✓ hydrochloric acid
- ✓ map giving location of each mapping project, in case of emergencies
- ✓ mylar for map overlays
- ✓ notebooks (we will purchase in quantity and sell to you)
- ✓ topographic maps
- ✓ stereographic nets and tracing paper

INFORMATION ABOUT THE RIVER TRIP—EPS 420/520

The river trip will be a spectacular voyage through the Lower Granite Gorge of the Grand Canyon (about a ninety mile trip). June will be hot, but it can also get cold -- be prepared for anything.

1. Food for the trip will be provided and will be cooked by ourselves in congenial and efficient cook groups. Please let me know if you have any special dietary needs (vegetarians, etc?). We provide cooking and eating gear, although many people like to bring their own insulated mugs.
2. I also need to know of any medical concerns you may have. If I don't hear from you, I'll assume the only medication you take is that cup of coffee, tea, or cocoa in the morning.
3. Listed below are items we suggest you have on the trip. We will provide each of you with a large dry bag, a life jacket, and a small ammo can to keep your camera (or what not) dry on the boat. You should have a day pack to keep water bottles, rain gear etc; it can be clipped onto the boat with a carabineer (please bring your own).
4. Suggested personal gear checklist:
 - Daytime temperatures will be around 80-100 F, nighttime temperatures will be 80s. However, river temperature is cold which sometimes makes for a chilly time on the boats so you need to be prepared for getting soaked by the frigid <50* Colorado river. A wet suit is not needed (or wanted)-- just a good rain suit (pants and jacket) over capilene or poly-pro stuff.
 - **Wet stuff:**
 - river sandals (Teva etc) or old tennis shoes,
 - nylon shorts,
 - light weight nylon pants and shirt to keep the sun off,
 - hat,
 - rain gear (rain jacket and pants).
 - **Hiking stuff and clothes:** (have enough clothes so that if you get really wet you can change):
 - Day pack,
 - Mapping gear,
 - camera & film,
 - light hiking boots(in camp or on the river),
 - sweater or pile jacket for evenings or when wet,
 - long field pants,
 - short sleeve shirt (2),
 - long sleeve shirts (2) (white works well in the heat),
 - extra socks,
 - underwear,
 - hat and spare (with Strap or clip),
 - sunglasses w/ strap,

- extra prescription glasses w/strap,
- bug juice (optional),
- knife,
- water bottles (3-4 liters worth)
- We will be doing some hikes so bring good shoes or boots and some moleskin if the feet are not in shape.

- **Camping Stuff:**

- tent --often we don't bother to set up tents, but it does rain occasionally
- ground cloth
- sleeping bag: a light weight one (synthetics are better when wet)
- Paco pad, foam pad, Thermarest etc.
- small pillow (nice touch)
- soft chairs (crazy creek etc., folding chairs (not lawn chairs)
- flashlight (headlamp best) w/extra batteries

- **Toiletries:**

- toothbrush, paste, floss etc
- bandaids
- sunscreen (waterproof)
- aspirin/ibuprofen/tylenol etc
- hand lotion w/good lid
- soap (Dr Bronners is better for the river)
- wash cloth ?
- brush, comb, razors?
- Towel (small)