

To: All students enrolling in EPS 319L Introductory Field Geology in Summer 2023

From: Karl Karlstrom, EPS 319L Professor, kek1@unm.edu

This communication should answer most of your questions about plans for EPS 319L in Summer 2023, which is not too far away!

REGISTRATION: All applicants must comply with the timelines emailed earlier. Tuition will be about \$1388.16, plus a course fee of \$450.

****Non-UNM students **MUST** apply for non-degree status before registering for the course - complete this now at <http://www.unm.edu/apply/>.****

Online registration should open Monday April 11 - payment of tuition and fees must be completed by Friday May 6.

Online course materials: We will use Canvas course pages at canvas.unm.edu for some supplementary materials. These will be accessible to you once you have registered and the course begins. For UNM network access by non-UNM students, after registering, obtain a NetID and password here: <https://netid.unm.edu/>

DATES FOR 319:

- **Non-UNM students who are flying or making long drives must plan to arrive in Albuquerque by Sunday, May 14.** We appreciate it if your flight is not too late in the PM!
- **We will have a mandatory introductory meeting for EPS319L on Monday, May 15th at 9 AM, room 105, Northrop Hall at UNM.** We will introduce the general nature of the 319L course, check out Bruntons and GPS units, make other field supplies available for sale, address logistics and safety concerns and begin to discuss the geology of the Land of Enchantment and environments! In the afternoon we will complete some GPS and mapping activities and cross section preparation.
- Our first field exercise will begin at 7:30 AM, Tuesday, May 16. The coursework will end late on Monday, June 5, when we'll complete the final field project and we will review our findings. **During this time period, please understand that you are to make no other daytime commitments.** Students flying out of Albuquerque should plan on departing on June 6 or later. The tentative field project schedule is as follows:
 - First Project - 6 days (May 16 - 21): Mesozoic strata, Laramide-related deformation, and Quaternary deposits and associated landforms, San Ysidro, New Mexico. Based out of Albuquerque.
 - Second Project - 6 days (May 22 - 27): Jemez Mountains volcanology and geophysics.
 - Third Project – 3 days (May 28 – May 30): Map Precambrian basement, Great Unconformity, and ore deposits in the Galena King Mine area of the Manzano Mountains, NM.
 - Fourth Project- 5 days (June 1- 5): Map Precambrian, Paleozoic, and glacial deposits in the Molas Pass area, Needle Mountains, CO.

You will have very limited time "off" during this intensive 3-week course, so it is very important to be prepared in all respects before the course begins.

PERSONAL GEAR (see also equipment list at end of memo): Please be well-prepared for extreme variations in weather, which has varied from very hot (104° F) to cold and wet (snow, hail, and sleet) over the period of a week during 319L! There is about a 99% probability that there will be very strong winds while we are camping that will test your tent design - avoid tall, floppy dome tents with little side support, and be prepared to stake your tent out securely in loose sandy soil – you should obtain some extra inexpensive long plastic stakes if your tent has only lightweight wire ones. We hope that the high temps will be about 78° every day, with a few clouds in the sky and no more than a light breeze ... but the probability of that is about the same as winning the lottery.

Sturdy footwear is mandatory. No one may wear sandals in the field; there are far too many sharp and loose rocks, cactus, and rattlesnakes for you to move safely and efficiently around the map areas with sandals or other open footwear.

Sunburn and dehydration can be serious problems and manifest in only a few hours in the high desert and mountains. Please USE abundant sunscreen and fill at least four liters of sturdy water bottles for each day. Most projects will be in warm to hot and DRY places; the map areas are devoid of streams from which to filter water.

TRAVEL TO FIELD: EPS 319L will use department vehicles for class travel. **Use of seatbelts is mandatory at any time the vehicle is moving.**

MEALS: While based in Albuquerque, lunches should be brought with you on each of these days. While overnight camping, we will shop for and cook all meals. The Department will kitchen gear, propane stoves, lanterns, water containers, and some coolers. Bring your own coffee mug! We will address all food restrictions and design meals collectively before we shop.

ALCOHOL: The consumption of alcohol in a University vehicle is absolutely forbidden. Alcoholic beverages taken on camping trips MUST be kept in coolers or other enclosed spaces at all times while vehicles are being packed and while vehicles are moving to a final destination. In addition, alcoholic beverages are NOT allowed in “public” spaces, such as group cooking areas and in group working areas. In other words, consumption of such beverages should be restricted to small groups relaxing around individual tents, etc. More on this during our first meeting. Please understand that EPS 319L is a test of your performance IN THE FIELD and is a reflection upon UNM EPS.

DRUGS AND MEDICATIONS: 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. The possession and (or) use of illegal drugs on a University field trip is forbidden by law.

GUNS: Do not bring them; UNM safety policy forbids firearms of any kind.

ELECTRICAL: We will have 12 volt batteries to re-charge phones and tablets on the camping trips. **You are encouraged to bring tablets and personal laptop computers for use in analyzing data and writing reports.** Cell phone coverage at the camping area is unreliable.

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 Monday, May 18th you will need to fill out an insurance and liability waiver form, and if you do not have coverage, we will provide UNM insurance for the duration of each course. Your own personal insurance should cover you on these courses, but you need to provide the name of the insurance company.

INSTRUCTORS: Karl Karlstrom is the principle instructor, and we are fortunate to have other EPS faculty involved for projects in their specialty: Laurie Crossey (water and travertine), Tobias Fischer (volcanology), Tyler Mackey (sedimentary rocks), Brandon Schmandt (geophysics), Lindsay Worthington (geophysics), Eric Lindsey (geodetics). There will also be four experienced TAs.

EQUIPMENT AND SUPPLIES, EPS 319L

Items in red available for sale from the UNM bookstore prior to and during the class; prices approximate. Suggested items in *italics*:

Your Responsibility:

- belt pouch for notebook, pencils, pens, etc. (or equivalent, such as a field vest)
-- an excellent one can be ordered at <http://www.plateaudeign.com/>
- belt to hold pouch, Brunton compass, GPS etc.
- mechanical pencils with erasers and hard lead, 0.5 or 0.3 mm; or
- pencils, 4H to 6H, with erasers and pencil sharpeners
- erasers
- erasable colored pencils - Faber Castell Col-erase are the best; avoid soft crayon-like pencils
- field notebooks (NEED at least two) - \$7 each
- field map board/case (strong, lightweight 12" x 12" clear Lexan) - \$7.50 each
- acid bottle - \$1 each (HCl included)
- protractor/ruler combination (6", clear, **get at least three or four**) - \$1 each
- rock hammer
- hand lens
- calculator
- triangle, drawing, with ruled edge*
- notebook computer (not required, but very strongly encouraged if you have one; USB drive to transfer files, for digital work to be turned in

Provided:

- first aid kit in vehicles (large)
- Brunton compass (but if you have your own, please bring it!!!!!!)
- handheld GPS unit with batteries
- topographic base maps
- mylar for map overlays
- aerial photographs (when necessary)
- background readings for each project in digital format
- stereonets and tracing paper or stereonet software

Personal gear (Be prepared for cold, hot, wet, and/or dry conditions):

- sturdy, broken-in boots (**NO sandals in field**; these are OK in camp, but watch for rocks and cacti)
- water bottles (at least four one-quart sturdy containers or the equivalent)
- sunscreen** (lots and waterproof)
- personal medications as needed
- first aid kit (small, personal)
- headlamp
- hat, gloves, and other warm clothes including lightweight synthetic long underwear.

- sunglasses and hat for sun
- rain gear (light weight and very waterproof)
- sturdy daypack, capable of holding raingear and warm clothes, one gallon of water, extra pair of socks, sunscreen, LUNCH, personal first-aid kit, and of course rocks
- watch, or mobile phone and charger
- pocket knife
- insect repellent (biting gnats may be a problem in the New Mexico projects)
- tent (WIND and rain-proof), with long and strong stakes
- sleeping bag, foam pad
- personal coffee mug
- towel (sun showers provided) and soap, shampoo etc.

Optional gear (add your own items below):

- notebook computer (very strongly encouraged if you have one; bring USB drive to transfer files)**
- camp chair
- camera
- musical instruments (no grand pianos or stand-up bass please)

- frisbee, football, soccer ball, bocci balls, horseshoes, etc