

UAF Geology Field Camp – equipment and gear list (2024)

Personal equipment

The gear listed below has to be provided by the student. While out in the field, you will have no chance to buy missing gear. You need to be fully equipped before we head out. Fairbanks has several good outfitting stores (REI on College Road in the East, Beaver Sports on College Road just east of the campus, Prospector on South Cushman).

1. Clothing

The weather will range from 85°F to possibly 20°F. Wind, rain, freezing rain, and snow usually occur at our sites and your clothing should be adequate to handle these conditions. Include enough layers to keep you warm and dry through these conditions. Garments should be easily donned and removed to adjust to rapidly changing conditions.

Underwear, shirts and T-shirts: Outdoor, sports or functional clothing is more expensive than those made of cotton, but dry much quicker: in the field when you sweat or back in the camp after washing.

Jackets and pants: A softshell, wind shell or fleece jacket and long quick drying pants are ideal for dry conditions. A separate rain jacket or hard shell and rain pants are **HIGHLY** recommended. If it rains frequently during the three weeks at Limestone Gap, a wet regular jacket will barely dry. Be prepared for rain! Rain pants should be light enough for comfortable hiking but tough enough that the brush won't tear them up.

Belt: Bring a comfortable wide belt for a Brunton, hammer, acid bottle, etc.

Hat: You should have a warm hat and a light one (e.g. baseball cap) to provide protection from the sun and UV-rays. A balaclava style hat is great because it is quickly adjustable to many weather conditions.

Helmet: We recommend that you bring a climbing helmet to provide additional protection on steeper rocky slopes. We don't provide helmets, since a comfortable and snug fit depends on your head size. Regular hard hats are not recommended, since they are not very comfortable and are not very stable during hiking.

Gloves: A pair of warm gloves is necessary for cold/wet weather. Wool gloves are a good compromise between dexterity and warmth.

Sunglasses/Safety Glasses: For protection against bright sun/rock chips. Bright days can be very bright and at high altitudes the glare can be very uncomfortable and blinding. If you don't wear glasses you should bring a pair of safety glasses or sunglasses to wear when breaking rocks. Rock chips or metallic fragments from the rock hammer can spall off with enough energy to injure eyes (Unfortunately, I can

attest this from personal experience – not my eyes, but nevertheless!) We will provide basic safety goggles, but for your own comfort you may want to bring your own.

Boots: Should be sturdy enough for hiking in rocky terrain and provide ankle support. They should be sufficiently waterproof for frequent wet and muddy conditions (and occasional creek crossings). Gaiters can also help keep your boots dry. Alternatively, bring along waterproof boots (e.g. Xtratufs, Muck boots) that are very comfortable in wet terrain. It is recommended to have a second pair of field proven boots as a backup. Light tennis shoes or Teva sandals for the camp life will give your feet time to relax.

2. Field Equipment

Field Vest: Not required, but a good surveyor's vest helps organizing your gear. Some have a built-in pouch on the back which is ideal for raingear.

Water bottle: At least two water bottles, or a "Camelbak", with 1.5-2 liter capacity. On warm days you will need more. We will supply treated water (Katadyn filter system) in our camps. Do NOT drink from creeks and lakes without treating water first. The threat of Giardia is very real throughout Alaska. All surface water should be considered suspect no matter how pure it looks. You have to experience Giardia to *appreciate* what it can do to you.

Backpack: You will need a pack for carrying gear for day hikes. A 40 L pack is sufficient. Something that will carry raingear, jacket, lunch, water bottles, radio, camera and anything else you may need during a day of mapping geology.

Trekking poles: Long day hikes in rocky and steep terrain are hard on your knees. Trekking poles provide relief and extra balance. They are HIGHLY recommended, not only for old folks.

Camping Equipment: You will need a small personal tent, a sleeping bag and whatever else you need to camp out in remote areas. **The tent should be sturdy enough to withstand high wind and heavy rain.** A \$20 Walmart tent will not do the trick! Be sure that your sleeping bag will keep you warm down to 20°F. Manufacturers are usually pretty optimistic on temperature ratings. An additional thin inner layer can provide extra warmth. A waterproof ground cloth and an inflatable mattress (e.g., Therm-a-Rest) will provide additional isolation and comfort on a hard and cold ground.

3. Cooking and food

Fully equipped kitchen tent with several propane stoves, pots and pans. A variety of fruits, veggies, eggs, meats, sausages, and dried goods (pasta, rice, soups), snacks, sweets will be provided. A food questionnaire prior to the start of the camp will help us purchase according to your preferences. We have no cook, so people are encouraged to cook for themselves or in smaller groups. You can also bring your own food if you like (Sorry, you will have to pay out of your own pocket for that.)

Kitchen utensils: Bring your own mug, plate, bowl and cutlery.

4. Geologic Field Equipment

Rock Hammer and Hand Lens: You should bring a rock hammer and hand lens as a minimum equipment. A Hastings Triplet lens (10x) is a good buy for someone who will be using it for a while. If possible bring a hardened-steel hammer (Estwing) along. Metal chips can easily spring off cheap soft hammers and cause serious eye injury (Believe me!) Also, bring a belt loop which works with your hammer and belt.

Tablet for mapping: Most of the mapping will be done digitally using iPad minis and the StraboSpot app. **We will provide them.** You are welcome to use yours - or an Android tablet - if you want. Note, that it has to cell enabled. But a cell plan is not required. WiFi-only is not sufficient.

We still provide analogue backup equipment, such as

Compass: If you have a Brunton compass (Pocket Transit), please bring it along. However, we will furnish a Brunton to students who need them. Bruntons are expensive, but those with a metal body will last a lifetime, and you might as well get one now.

Drafting/Drawing Equipment: We will furnish you all the necessary drafting supplies like pens, pencils, drafting mylar, tape, notebooks and paper, etc. If you have your own favorite tools, be sure to bring them. For field maps a 0.3 mm Pentel with HB lead is ideal. We will furnish these to students but don't have an inexhaustible supply. 0.5 or 0.7 mm pencils work well when writing in the field book and will work in any weather.

Map Board: We will furnish a basic map board or clipboard for each student. Bring your own if you have a map board that works for you. A very useful map board can be constructed of Plexiglass (14"x14") with a duct tape hinge – this keeps a large chunk of your map viewable in the rain and wind.

5. Other Equipment

Pocket Knife: Handy, possibly essential – especially one with scissors for trimming mylar, etc.

Insect Repellent: DEET or DEET-free insect repellants at whatever concentration you prefer. Extremely high concentrations of DEET can melt plastic field gear and are very irritating to the skin, but are effective if applied to clothing (not synthetic fabrics though!) We will supply some DEET and DEET-free sprays, but it's not unlimited.

Sunscreen, Chapstick, Moleskin: These are essential. We will have small quantities available in camp, but one should carry this stuff wherever you go.

Prescription Eyeglasses/Contacts/Medicines: Bring extra pairs of eyeglasses, contacts and separate containers of medicines. It may be difficult to maintain contact lenses in the field and many of the sites will be windy and dusty, bring spare eyeglasses if you have them. Bring copies of prescriptions as backups. Fairbanks has pharmacies and eyeglasses can be made in Fairbanks, but we will only be in town for a week or so at the beginning and end of the camp. The medical cabinet of the Field Camp is equipped with pain relief, cough and cold medicine, cool packs, ointments, but you are responsible for your own special medication.

6. Provided gear

Additional geologic equipment: iPad mini, Brunton compass, GPS, protractors, map boards, structural boards

Two-way radios for communication: Mobile internet and cell phone connectivity is restricted and not available in remote parts of the Alaska Range and the Talkeetna Mts. For these sections a satellite phone is accessible to all participants, but its use is reserved for emergency and logistical purposes. While out on daily traverses, we carry two-way radios to keep in touch with base camp and other groups.

Emergency communication: We provide Garmin InReach devices for emergency communication (texting only). Using the same satellites as sat phones, they allow communication without cell phone coverage. Two satellite phones are located in camp.

Bear spray: Each student will be provided with a bear deterrence canister. If you bring our own, make sure it has not expired. Older containers will lose pressure and can be less effective. You want to have the maximum security in case you encounter a bear.

First Aid kit: Each group will be provided with first aid kits for the daily traverses.