

**Physical and Safety Requirements for UB Geology Field Camp
(GLY 407: Geological Field Methods. 3-6 cr.)**

Catalog Description: *Applied field methods in geology. Geologic field trips and mapping from a mobile base in the western United States. Mapping projects include surficial deposits in Colorado and areas of increasingly complex sedimentary structure in Utah and Wyoming.*

The course is an intensive 4-week program of immersion in the methods of geological field mapping. Students camp during the majority of this time. Participants are in the field all day (9 AM to 4PM) during most days and are engaged in strenuous physical activity over most of this time.

Weather: Weather at camp is typically hot (daytime temperatures as high as 95°F are common, whereas nights may fall to near freezing) and very dry. Skies are typically cloudless and sites commonly have little or no shade. Thus, we are exposed to the sun all day long and skin must be covered with clothing or repeated applications of sun screen. Participants should wear high-quality UV-filtering sunglasses in addition.

Terrain: All field sites are wild, bearing neither trails nor pavement. Participants must be able to hike over steep rocky slopes, dry stream beds, and brushy hillsides. The terrain is uneven (loose rocks, brush, and cactus are common) and is occasionally quite steep. Sites range from rocky canyons (with sheer cliffs, which we avoid) and rolling plains. Site elevations range from 5,000 feet to nearly 8,000 feet above sea level.

Health & Safety: Field work necessarily entails some unavoidable risks to life and limb. Nevertheless, UB Geology has a forty year history of safely conducting camp without serious injuries. The rugged character of the site poses physical hazards (tripping and falling, etc). High temperature and strong sun also pose serious risks of dehydration and sun burn, among others. Substantial water consumption is necessary to avoid dehydration and heat exhaustion. In addition, wild country in the western US contains dangerous animals (rattle snakes, scorpions, mountain lions). All these animals will flee humans given the opportunity, but to give them this opportunity participants must remain vigilant.

All the above hazards can be avoided or minimized with caution and informed good judgment. Camp staff provide training in hazard avoidance to all camp participants. Additionally at least one member of the camp staff is trained in first aid and can provide assistance with minor medical issues such as sun burn, minor cuts and abrasions, minor sprains, etc. For needs beyond these we seek medical assistance at one or another of the local clinics or hospitals. In the map sites we are routinely one to two hours from emergency medical assistance.

Thus

- *Participants must be able to bear exposure to heat, cold, and sun like that described above.*
- *Participants must be sufficiently physically fit and in sufficiently good health to maintain strenuous physical activity like that described above and must not be at high risk for*

sudden onset of life-threatening medical conditions. Our experience is that strenuous exercise and elevation can aggravate preexisting but otherwise minor or hidden conditions and pose a serious health risk. All participants must ascertain that they are medically fit to attend field camp by consultation with a licensed physician.

- *Students must be able to walk without assistance four to five miles per day over terrain like that described above while carrying a backpack weighing at least 25 pounds (including lunch, 3 to 4 liters of water, emergency supplies, rain gear, and mapping equipment).*
- *Students must possess vision sufficiently keen (unaided or with correction) to be able to spot the physical hazards present in field sites. They also must be able to see well enough to comprehend geological features at physical scales ranging from hand specimens (examined with a hand lens) and local outcrops observed at a distance of meters, to mountain side exposures viewed from miles away.*