

SUMMER GEOLOGY FIELD CAMP 2009

ERTH 480 (6 cr.) and EARTH 483/483/485 (2 cr. each)

(May 23 through July 5, 2009)

PREPARATIONS FOR FIELD CAMP

The comments below pertain primarily to the first 4 weeks of geology field camp (ERTH 483 and 484).

Packing and Luggage - Consult the field equipment list at: <http://www.ees.nmt.edu/Geol/classes/camp/equip.html> to see what is required and generally acceptable. Luggage space during field camp is limited. Do not bring ice chests, table top stereo systems, television sets, desk top computers, bicycles and the like. Normally you will be limited to the equivalent of two large bags plus a field (back) pack during travel. My definition of a "large bag" is one that is light enough to be carried by one person across a large parking lot and up three flights of stairs with no more than one rest stop along the way. Duffle bags are great. If an item is not on the list and you have questions regarding what is acceptable - ask.

Balance of Fees - Off campus participants and Tech students who have not paid the balance of their tuition and other fees must do so prior to the beginning of field camp. Administrative offices close at 4:00 p.m. on May 23rd. Because transportation from the airport to Socorro will arrive too late to pay fees on Friday, off campus students must pay fees by mail or over the telephone BEFORE May 22nd.

Insurance - All participants in field camp are required to have health insurance in effect between May 22nd and July 5th. If you have your own health insurance, you must either bring with you or send to the registrar, proof of coverage for the interval or an official letter substantiating your coverage. Proof of insurance should also be available during field camp so that medical providers will have a valid billing company and address.

ACCOMMODATIONS IN SOCORRO

Housing - Students will be responsible for their own lodging through the night of May 22nd. For those of you coming from out of town, you may stay either in a dorm room at Tech or in a motel for the nights of May 21st and May 22nd. You may reserve a double or single occupancy dorm room (no linen). Last year the prices were \$14.50 and \$17.50 per night (respectively).

Arrangements may be made **through May 11th**, by calling Housing (at 575-835-5900). Identify yourself as part of the "Geology Field Camp Group." **Dorm rooms must be reserved and paid for in advance.** There are many motels in Socorro and you shouldn't have any difficulties finding a room if you do not make arrangements in advance.

Meals in Socorro - Students will be responsible for their own food through the noon meal on May 24th.

Private Vehicles - Personal vehicles are not permitted along on the field course.

Parking for Private Vehicles - If you wish to leave your vehicle in Socorro you may do so at your risk. If you will need to park a vehicle during field camp, contact djohnson@nmt.edu immediately. Arrangements must be made in advance. Vehicles will be parked on Sunday morning (May 24th).

SCHEDULE IN SOCORRO (May 22nd - May 24th)

Fri., May 22nd

~7:30 p.m. - Airport pickup and transport to Socorro

Sat., May 23rd

8:30 - ~11:30 a.m.: Orientation in [MSEC](#) 101
13:00 - Intro to Field Methods in the field

Sun., May 24th

8:00 a.m. - Load vehicles and travel to Las Vegas, NM
noon - lunch in L.V.
13:00 - Intro to Stratigraphy
late afternoon - check into dorms

CONDUCT OF FIELD CAMP

Meals - Most meals between the evening May 24th and the morning of July 5th are covered as part of field camp expenses. The exceptions are travel days (approx. 6) when you are expected to provide your own meals from restaurants or in camp.

Breakfast, lunch and dinner will be covered by fees during our stay at New Mexico Highlands University (NMHU; beginning 5/24) and in Taos areas (beginning 6/25). You should bring sufficient additional funds to cover your food and other purchases for days not covered by the conditions outlined above. The amount will depend on whether you prepare your own food or eat at cafes (during the travel days it may be necessary to eat dinners in cafes). We recommend an **absolute minimum** of \$200.00-\$250.00 to cover these meals. You should bring additional money for incidental expenditures over the 6 weeks.

Dorm Accommodations - Dorm rooms employed for field camp are double occupancy and come without linen or blankets. Most participants use their sleeping bags. If you require linen, blankets and pillows, bring some. **A small desk lamp may prove to be very useful.**

Telephones - The dorm rooms at NMSU are wired for telephones. Numbers to rooms will be available.

Internet Access - The dorm rooms at NMSU are wired for internet. Please bring an ethernet cable to connect. Internet access will not be available after departure from NMHU.

Basic Rules and Regulations - A more comprehensive list of rules will be circulated on the morning of May 23rd. Rules below are intended to assist your preparations for field camp and our departure on May 24th.

- A. Firearms and fireworks are not permitted either in the field or in our lodgings.
- B. Pets will not be permitted during the field course.
- C. Alcoholic beverages will not be permitted in the field.
- D. Use of personal vehicles is not permitted.

Teaching staff

Three faculty members, plus a teaching assistant will be involved in the course at various times this summer.

- Dr. Bruce Harrison (environmental geology, soils geomorphology)
- Dr. David Johnson (stratigraphy, carbonate rocks, paleontology)
- Dr. Gary Axen (structural geology, igneous and metamorphic petrology)
- Mr. Kyle Rybacki

Locale - The first 3? weeks of New Mexico Tech's field geology course will be spent in the area of Las Vegas, NM in the northeastern part of the state. Students will complete field exercises in Paleozoic and Mesozoic strata exposed in the area. During this time we will stay in dormitories at New Mexico Highlands University Las Vegas, New Mexico.

We will spend 6 days on a tour of localities in the Four Corners region affording field camp participants an opportunity to visit geologic and scenic features on the Colorado Plateau.

The remainder of the camp will be spent mapping and describing granitoids, metamorphic rocks and ductile deformation in the vicinities of Pilar and Taos in northern New Mexico.

OBTAINING YOUR GRADES AFTER FIELD CAMP

Instructors will assign course grades immediately after field camp ends and the final exercise has been graded. You will receive an "unofficial" grade along with the final exercise, if you provide us with a summer mailing address. An official transcript with your grade for Tech's field camp will be provided after August 7, 2009, from the New Mexico Tech Registrar. The first copy will be sent free of charge. Each subsequent copy will cost \$5.25 each. The registrar requires a signed [transcript request form](#) to release the transcript(s).

4/23/09

last updated on: March 19, 2009

- How physically demanding is this going to be?
 - What will the weather be like?
 - What dangers might I face?
 - How much stuff should I bring?
 - What sort of camping will we be doing?
 - How should I arrange my flight into Albuquerque and departure from Albuquerque?
 - What kind of field notebooks do we need?
 - Do we need a ruler with English units or an engineering scale ... ?
 - Do we need HCl and a container or just the container?
-

The following information is relevant to your participation in field camp this summer.

How physically demanding is this going to be? - Geologic field work frequently involves strenuous activity. These activities may occur at elevations higher than customary and in weather conditions that are less than ideal. While you do not need to be a marathon runner, you must be able to hike off trail. **We recommend that in the time remaining you increase your level of physical activity in preparation for field camp.** Vigorous walking, hiking, jogging or biking will pay dividends. Learn to drink fluids regularly while exercising. This will be crucial during field camp.

What will the weather be like? - We will be in northern New Mexico operating at elevations above 6,500 feet. Anything you might imagine (and then some) is possible for weather conditions. We have been snowed on for Memorial Day (daily max. temp. < 40 degrees F) and a few days later experienced 100 degrees F. We have had years when it rained virtually every day (bring rain gear!) and others when the countryside was so dry that forest fires were a threat (bring sunscreen). The bottom line is prepare for the worst - extremes of heat/cold and wet/dry.

What dangers might I face?

- **Dehydration:** Except when it is raining cats and dogs, New Mexico has very low humidity. This is good in one sense, because evaporation of perspiration will cool you on hot days. **The negative side is that one can quickly become dehydrated.** Plan on having plenty of water with you (minimum 2 quarts) and drinking regularly - before you are thirsty.
- **Creepy crawlies and bigger stuff:** Folks who are not from New Mexico are concerned about spiders, snakes and other threats from animals (and plants). Yes, tarantulas, scorpions, rattlesnakes, bears, wildcats and other forms of wild life inhabit New Mexico. So far as I am aware, not one single field camp participant has been lost to any of these dangers. Some time at our orientation will be spent providing you with information about how to avoid encounters with wildlife. The bottom line: understand the dangers, use common sense and things will be fine.

- **Other injuries:** Working in topographically rugged areas requires attention and judgment. **Be careful** in steep terrain and if you feel uncomfortable about following a particular route - don't.
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How much stuff should I bring? - The [list](#) provided is intended to guide you in the acquisition of equipment for the field camp. Notice that the list is subdivided into equipment that is **essential** (required), **desirable** (recommended), and **optional**. **Do not** bring ice chests, table top stereo systems or television sets, bicycles, desktop or tower computers (laptops and PDAs are allowed), and the like. Luggage space during field camp is limited. Normally you will be limited to two luggage bags and your backpack during travel.

What sort of camping will we be doing? - Most of the time we will be staying in dorms. We will camp in various locations for seven nights. This will be car camping. You should have a sleeping bag that is comfortable down to the mid 40's (F), a sleeping pad/mattress, and access to a tent. Shared tents are fine.

How should I arrange my flight into Albuquerque and departure from Albuquerque? - If you are planning to fly to Albuquerque the following information will be useful in planning your flights. I will plan to send a department van to the Albuquerque airport to pick up students arriving there. That van will depart Albuquerque for Socorro in the late afternoon or early evening of Friday, May 22, 2009. I can set the time more firmly as I have information on arrival times for all students. In making your travel plans assume that the van will leave Albuquerque for Socorro no later than 8:00 pm on Friday, May 22, 2009. At the completion of the course, we can drop you off at the Albuquerque airport by 2:00 p.m. on Sunday, July 5th. Return flights from Albuquerque may be arranged for the afternoon or evening of Sunday, July 5th. If you return to Socorro, you will need to make arrangements to return to Albuquerque or other points.

What kind of field notebooks do we need? Regular school notebooks or Rite in the Rain notebooks from Forestry supplies? Spiral, bound, ring binder? - Notebooks should be bound (not ring binders or spiral binders. I don't care much for rite in the rain field books (and they are expensive), but prefer bound transit books like the Sokkia Field Books at <http://www.ascscientific.com/fldbks.html>.

Do we need a ruler with English units or an engineering scale where the inches are divided into even numbers of units? - Not engineering scale. Again, I prefer metric and English in 10^{ths} of inches.

Do we need HCl and a container or just the container? And, if both, where can I get the HCl? I know I can order the container online? - You need the container. I don't like to travel with acid in a plastic bottle and I suspect you won't either and who knows what the TSA will say. We'll have acid on that first Saturday.

If you have any questions, regarding any aspects of the field camp, equipment, etc., do not hesitate to give me a call (number below), or drop me a line.

2009
FIELD ADDRESSES and EMERGENCY PHONE NUMBERS
(tentative)

The addresses and emergency numbers for our major layovers are listed below. The emergency numbers will connect the caller with someone who may communicate **emergency messages** only. Regular calls may be made and taken from pay phones where available, however, those numbers will not be known until arrival. If we are unavailable at the emergency numbers below, contact the Department of Earth and Environmental Science at New Mexico Tech by phone at (575) 835-5635.

May 24 - June 17, 2009: Las Vegas, NM (UPS and FedEx packages are typically not delivered at NMHU)

your name
New Mexico Tech Field Camp
c/o General Delivery
New Mexico Highlands University
Las Vegas, NM 87701
Emergency Number: (575) 454-3274 (Campus security)

June 18 - June 24, 2009: Camping in Four Corners region

No access to mail pick up

June 25 - July 4, 2009: Taos area

your name
New Mexico Tech Field Camp
c/o Taos Mountain Lodging Center
P.O. Box 2626, Taos, NM 87571
Guest Phone Number: 575-776-8940

July 5: Return to Socorro, NM

(3/19/09)

FIELD EQUIPMENT LIST

A) Essential Items (required for all registrants)

time piece	rock hammer
field boots ¹	hand lens (10x)
water bottle(s) or hydration pack (4 qts. minimum)	HCl & container
small day pack	grain-size card
jacket or windbreaker	small safety pins
warm coat	toilet paper
warm hat	rain poncho or raincoat
broad brimmed hat and bandana	personal first aid kit ³
pencils - 0.3 or 0.5 mm mechanical with HB lead	long pants
pens ⁷	report paper (8?x11") ⁶
erasable colored pencils (10 colors min.)	tracing paper (8?x11") and an equal-area stereo net
erasers	cross-section vellum/paper - 10 squares/inch (11" x 17" preferred)
transparent protractor & spare protractor	money (~\$200 minimum) ⁵
ruler/straight edge with scale	sleeping bag ⁸
field notebooks (several)	prescription medicines
map board ¹⁰	soap
safety glasses	towel
	alarm clock

B) Desirable Items

Chapstick	pocket knife	sunglasses
laundry soap	insect repellent	kleenex/T.P.
pillow	gloves	tent (may be shared) ⁹
flashlight (extra bulb & batteries)	sunscreen	ground cloth
Compton - Geology in the Field ⁴	air mattress or pad	Lamisil-AT, Desenex or similar
laptop computer w/ word processor	structure text	metamorphic petrology text
binoculars	camera	chisel
cooking gear ²	work gloves	scissors
tape	white out	pocket calculator

C) Optional Items

linen/pillow/blankets for dorms	"walkman"-type personal stereo with headphones
flip flops (for showers & gen'l use)	

1 Boots - Boots should be rugged, broken in, but new. A used pair of boots or cheap boots will not survive the entire six weeks. Bring an extra pair if there is any question.

2 Cooking - We will camp as part of several travel days. Typically morning and evening meals are prepared in camp. A two burner stove and some larger pots and pans will be available. Plan on bringing your own eating utensils (cup, bowl, spoon).

3 First aid Kit - Should include bandaids, needle, tweezers, disinfectant, aspirin, moleskin, antacid, diarrhea treatment, sunburn ointment, insect bite ointment, prescription medicines and (if you are sensitive to poison oak) Techno

products.

4 Geology in the Field by Robert R. Compton, 1985, ISBN # 0-471-82902-1.

5 Money - You should bring funds to cover expenses related to your travel to and from Socorro, and for meals on the 5 travel days (an additional ~\$200). Depending on your style of living, you should have additional funds to cover such things as laundry, film, and miscellaneous expenses.

6 Paper - This is the paper that will be used variously for written reports accompanying field maps, strat columns, cross sections, and other figures. Blank or ruled paper is acceptable, but some type of grid paper (engineering pads work, but are in inches) might be better.

7 Pens - Final projects are to be in ink. Ball-point pens are unacceptable. We recommend throw-away technical drafting pens that are graduated in size and use archival quality (nonfading, waterproof, nonacid) ink. Examples are the (pigma) [MICRON](#) brand, manufactured by Sakura Color Products Corp or the [Zig Memory System Millenium pens](#) by Kuretake Co. We recommend a 005 (0.2 mm line width) or 01 (~0.25 mm) in black for contacts, attitudes and lettering, plus an 02 (0.30 mm) in red, green or orange for faults. If you only buy black, the two sizes need to be separated by at least one intervening size so the line widths are clearly distinguishable. Probably two of the black pens is best as they do not stand up to heavy-handed writers: the nibs deform and the lines get fat.

8 Sleeping bag - You should have a sleeping bag along for the 7 nights when we will be camping. Although it would be unusual, temperatures approaching freezing are possible. Dorm rooms come without linen and many students use their bags on beds in the dorms.

9 Tent - During travel, weather can be unpredictable and on nights when it is either cold or wet, it is nice to have access to a tent. Not everyone needs to bring a tent. If you would like to know if there is someone who is willing to share a tent contact [Dave Johnson](#) who will query other students.

10 Two 1-ft² Plexiglas pieces with a fiber- or duct-tape hinge. Sturdy rubber bands hold down the map without tape. Anything to protect your map and give you a stiff working surface will do. You need a way to keep your map from flapping/tearing in the wind. Cut strong rubber bands radially from old car tire inner tubes.

04/29/08

Field Camp Gear	
Item	Notes
Air Mattress/Pad	These are a must during the road trip to keep you from getting too cold at night.
Alarm Clock	This is a must.
Antacid	I consider this a must, because the food tastes better going down only once!
Bathing suit	for recreational use
Batteries	For flashlights, personal stereos, and other items.
Binoculars	These are very useful for "butt-mapping" , and I only wish I had a pair.
Boots	Get boots that are durable, comfortable, and don't blister your feet. Break them in before you go to field camp.
Brunton Compass	This is advisable, but not necessary because the department has some. If you use a department compass, try to get a 360 degree model and avoid the Silva compasses all together if possible. Make sure the declination is set properly before you enter the field.
Calculator	A cheap model is recommended for doing adding, etc. I would not recommend that you bring your expensive graphing calculator.
Camera	I recommend that you get 2 or 3 disposable cameras. They take great pictures. The Kodak Max are good only outdoors (even those with a flash), but the Fuji cameras with a flash work good indoors and at night. This experience is a once in a lifetime deal, so take a lot of pictures. These are a lot cheaper at Wal-Mart than other places. They are \$6-7 each there or \$11-12 at a grocery store.
Canteens	I recommend that you bring containers to carry up to 1 gallon of water. A camel back-pack is ideal. It usually takes too long to go back and get water.
Chapstick	This is optional.
Clipboard	I recommend using a Plexiglas map board from Miners Supply. They are about \$40, but they will keep your work dry when it rains.
Cooking gear & camp stove	If the group desires to cook during the road trip, this should be arranged between everyone in the group.
Desk Lamp (clip on)	Dorm rooms typically have inferior light for working on maps
Erasers	Use only silicone erasers, because they don't smear.
Field Hat	This is a must. I recommend something with a wide brim.
Field Notebooks	If you use small books, you will need about 5 of them. If you use large ones, you can probably do it with at least 2. I used a write in the rain book in the field, then recopied my notes into a regular notebook at night. The regular books cost less and don't smudge. There are no places to buy field books once you get to Las Vegas or Taos.
First Aid Kit	I recommend this, because when you need medical supplies, they will be a long ways off otherwise. Cost is about \$25 for a small kit from REI. Also, you should buy a pack of Dr. Scholl's Mole Skin for sores that will develop on your feet.
Flashlight	This is useful during the road trip.
Foot Powder	Gold Bond makes an excellent medicated foot powder to keep your feet dry and fungus free. Use this in your socks everyday.
Gloves	These are optional, but not really necessary. There are a few mornings at Las Vegas where it gets cold.
Glue Stick	This is very useful for constructing reports.
	These are a necessity for the first month. I recommend purchasing 2 from the

Grain-size card	department-they are pretty cheap.
Ground cloth	This is recommended if you bring a tent.
Hand Lens	This is a must. I recommend that you purchase a high quality lens. Cost is about \$30-40, but it is well worth the money.
HCL and container	This will be used mostly during the first 2 weeks to identify cement in sandstone.
Health Insurance card	should you need medical attention
Ice Box	This is necessary if you want cold drinks every night. I recommend you not get a box bigger than 24 qt. Because of space considerations.
Imodium AD	This is another recommendation for the first aid kit.
Insect repellent	There are a lot of bugs near Las Vegas, especially after the rain. Mosquitoes are really bad at the camp site along the Rio Chama and Rio Grande (at Pilar). Unless you want to cover yourself completely with clothes (in the heat), this is recommended.
Jacket/Windbreaker	You need something to keep the wind off of you when it blows. This will keep you warm, but not too warm.
Kleenex/Toilet Paper	You will probably need to bring some TP into the field, because you will be in the field roughly from 8 a.m. to 5:30 p.m. However, you can probably "steal" some from the dorm at Las Vegas.
Laundry soap	You will need enough laundry soap to wash clothes for 6 weeks.
Liquid Paper Pen	Since all reports are in pen, this is a must. Purchase the fine point if you can find it.
Long Pants	There is a lot of scrub brush and a lot of hills to climb. Many places you may want to wear shorts instead, because of the weather. However, you should bring 4 to 6 pairs of whatever pants you decide to wear.
Lunch Box	A 1.5 to 2 quart plastic container will do. This keeps your sandwiches and fruit from being squashed before you eat it.
Marking Pen	This may be useful if you wish to collect field samples.
Money	Regardless of what Dave says on the web page, I spent over \$500 on miscellaneous necessities. Most people like to drink beer or sodas in the off-hours, and those cost a lot of money. There is no place to cash checks. However, ATM's are available. I recommend that you bring at least \$200-300 in travelers checks or have the money available through ATM
Pack (back)	A typical book bag will do the job. It needs to be big enough to carry your water, food, pencils and other mapping gear for the day.
Pancho/raincoat	This will probably be used during the first few weeks.
Pencil Sharpeners	You will need these in the field and at the office. Bring extras in case they are lost.
Pencils (colored)	Get a set with at least 24 colors in it.
Pencils (writing)	I recommend using cheap mechanical pencils with #2 lead or harder (2H, 3H, etc.). Use softer lead for reports, and harder lead for field notebooks.
Pens	Dave DOES NOT want people using regular ball-point pens-you will be penalized if you do. He recommends those Pilot Rolling V Ball pens, but the problem with them is that they leak when they get hot, and they don't work drawing over pencil. Buy a few of the rolling V ball pens for writing reports. I got 2 black, 1 red, and 1 blue. For inking-in contacts that were drawn with pencil, us Pilot razor point pens-buy a whole box of them. They will only last 1 to 2 reports before they get "dull", but they are excellent for writing over pencil.
Personal Stereo	A "boom box" is too big. A Walkman or Discman is okay. You will need headphones or a set of small speakers. A radio can be very nice to have while you are writing your reports.

Personal toiletries	Soap, shampoo, toothbrushes, deodorant, toothpaste, and other items are necessities.
Phone	This is optional for the first 3.5 weeks in Las Vegas. It is a little more private than using a pay phone. However, you will also need a phone card to make calls from your room.
Pillow	This is very useful, because the pillows provided at the hostel are not very good, and you won't have one at other places (Las Vegas & road trip) unless you bring one.
Plastic food container	to keep sandwiches from being crushed in your pack
Pocket Knife	This is optional, but it is also useful for many things. I would recommend that you use a Victorinox Swiss Army Knife.
Prescription meds	
Protractor	Bring about 5 of the small protractor/rulers. They get lost easily, and this is another valuable tool that you need. The ruler is also handy in the field.
Report Paper	Notebook or engineering paper is good for this application. About 30 to 40 pages should be enough.
Rock Hammer	This is a must. If you have to purchase one, buy a hammer that is at least 24 oz., but 32 oz. Is better.
Rubber Bands	This is very useful to hold maps down if you use a cheap clip board.
Ruler	12 inch ruler will be useful in the office.
Safety Glasses	This is not necessary if you have good sun glasses or prescription glasses.
Safety pin	For poking holes through maps to record data on backside
Scissors	This is very useful for several reasons.
Scotch Tape	This is useful for a variety of things.
Sheets	I brought sheets for the bed in Las Vegas (and my air mattress) otherwise you will have to use your sleeping bag.
Sleeping Bag	This will be used mainly during the seven day road trip. I used a blanket and sheets instead of this.
Sock Hat	This is useful if it snows or gets very cold. We did not need it.
Socks	You should purchase good socks made of wool blend. This sounds hot, but it is not.
Stamps	You will undoubtedly want to send letters and postcards as well as bills, and there won't be any places open that sell stamps after you get back from the field.
Stapler	This is very useful for completing reports.
Stereonet Plotter	You will need this the last 2 weeks. Just use the one you had in structural geology.
Sun Block	If your skin burns easily, this is a necessity. 45 is the best, because you will be in the sun a lot.
Sunglasses	These are recommended.
Template	You will need a template that draws rectangles. This is useful in constructing rock descriptions. Circle one also.
Tent	This may or may not be necessary. Most people end up sharing tents, so not everyone has to bring their own. Remember, space will be a limiting factor. Another note, if you bring a tent, it must be waterproof or you will get wet in the rain, and there is no other shelter.
Throw Rug	This is optional, but it is useful at Las Vegas, because there are no rugs in the bathrooms/showers. This can also be used as a "door mat" when you are camped at Pilar.

Towel	This will be necessary to both shower, and for swimming during the road trip.
Tracing Paper	You will need this for cross sections, stereographic nets, etc.
Warm Coat/Warm Hat	This is optional, but if it snows in Las Vegas or the Picuris Mtns. You will need something to keep you warm. A flannel shirt will do on most cold mornings.
Watch	This is necessary because you will be told to be at certain places at certain times.
Zip-Loc Bags	I recommend that you get a box of quart sized bags. These are good for sample collecting and also for food. They will buy bags for your food, but it will be those cheap bags with no seals.

Tentative 2009 EARTH 480 Field Exercise Schedule

[This schedule is subject to revision at anytime; best printed in landscape]

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					22-May	23-May
					16:00 - deadline to pay fees at NMT Cashier 19:30 - Airport pickup	08:30 - Orientation: MSEC 101; 13:00 - Intro to Field Methods (MSEC parking lot); dinner on your own
24-May	25-May	26-May	27-May	28-May	29-May	30-May
08:00 - Load vehicles; travel to Las Vegas, NM; 12:00 - Lunch in L.V.; 13:00 - Intro to Stratigraphy; 16:00 - check into dorms; 18:00 - dinner @ Hillcrest; 19:30 - Meeting: Intro to Ex. #1-1.	07:00 - Brkfst & prepare lunches; 08:00 - Intro to Stratigraphy; 13:00 - Field Ex. #1-1: Stratigraphic Section 18:00 - dinner @ Hillcrest	08:00 - Ex. #1-1 cont.; 13:00 - Ex. #1-2: Map Reading and Orienteering (due at completion) 18:00 - dinner @ Hillcrest	08:00 - Ex. #1-1 (cont.) and Ex. #1-2 (cont.) 18:00 - dinner @ Hillcrest	08:00 - Ex. #1-1 (cont.); 12:00 - Office: Ex. #1-1; 18:00 - dinner @ Hillcrest; 19:30 - Meeting: intro Ex. #1-3	08:00 - Ex. #1-3: Introduction to Stratigraphic Mapping; 18:00 - dinner @ Hillcrest; 21:00 - Ex. #1-1 Due	08:00 - Ex. #1-3 (cont.) 18:00 - dinner @ Hillcrest
31-May	1-Jun	2-Jun	3-Jun	4-Jun	5-Jun	6-Jun
08:00 - Office: work on Ex. #1-3; 18:00 - dinner @ Hillcrest; 21:00 - Ex. #1-3 Due	Free Day; 18:00 - dinner @ Archuleta Cafeteria; 19:30 Meeting to introduce Ex. #1-4	08:00 - Ex. #1-4: Stratigraphic and structural mapping in Abeyta Canyon 18:00 - dinner @ Archuleta Cafeteria;	08:00 - Ex. #1-4 (cont.) 18:00 - dinner @ Archuleta Cafeteria;	08:00 - Ex. #1-4 (cont.) 18:00 - dinner @ Archuleta Cafeteria;	08:00 - Ex. #1-4 (cont.) 18:00 - dinner @ Archuleta Cafeteria;	08:00 - Office: work on Ex. #1-4; 18:00 - dinner @ Archuleta Cafeteria; 21:00 - Ex. #1-4 Due
7-Jun	8-Jun	9-Jun	10-Jun	11-Jun	12-Jun	13-Jun
Free Day 18:00 - dinner @ Archuleta Cafeteria;	08:00 - Introduction to Quaternary Geology 18:00 - dinner @ Archuleta Cafeteria;	08:00 - Ex. #2-1: Quaternary mapping Sebastian Canyon 18:00 - dinner @ Archuleta Cafeteria;	08:00 - Ex. #2-1 (cont.) 18:00 - dinner @ Archuleta Cafeteria;	08:00 - Office: Work on Ex. #2-1; 18:00 - dinner @ Archuleta Cafeteria; 21:00 - Ex. #2-1 Due	08:00 - Ex. #2-2: Quaternary mapping Abeyta Ranch 18:00 - dinner @ Archuleta Cafeteria;	08:00 - Ex. #2-2 (cont.) 18:00 - dinner @ Archuleta Cafeteria;

14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	19-Jun	20-Jun
08:00 - Ex. #2-2 (cont.) 18:00 - dinner @ Archuleta Cafeteria;	08:00 - Office: work on Ex. #2-2; 18:00 - dinner @ Archuleta Cafeteria; 21:00 - Ex. #2-2 Due	09:00 - Field Review 18:00 - dinner @ Archuleta Cafeteria;	Free Day; purchase food for road trip 18:00 - dinner @ Archuleta Cafeteria;	07:00 - last brkfst @ NMHU; depart Las Vegas for road trip; - Ex. #2-3; #lunch and #dinner, evening: camp	#breakfast, Ex. #2-3; #lunch, #dinner; camp	~Noon - Ex. #2-3; purchase food for next two days; #breakfast, #lunch, #dinner; camp
21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	26-Jun	27-Jun
#breakfast, Ex. #2-3; #lunch, #dinner; camp	Noon - Ex. #3-1: Abiqui School; #breakfast, #lunch, #dinner; camp @ Pilar ;hand off 13:00 Ex. #3-1 Due	08:00 - Intro to Ex, #3.2, Champion Mine; #breakfast, #lunch, #dinner; camp	08:00 - Ex. #3-2 Champion Mine (cont.); #breakfast, #lunch, #dinner; camp	08:00 - Ex. #3-2 Champion Mine (cont.); pm - travel to Taos; #breakfast, #lunch;	08:00 - Ex. #3-2 Champion Mine (cont.)	08:00 - Office 21:00 - Exercise #3-2 Due
28-Jun	29-Jun	30-Jun	1-Jul	2-Jul	3-Jul	4-Jul
8:00 - Ex. #3-2 field review; Intro to Ex. #3-3 Piedra Lumbre	Free Day	08:00 - Ex. #3-3: Piedra Lumbre	08:00 - Ex. #3-3 Piedra Lumbre (cont.)	08:00 - Ex. #3-3 Piedra Lumbre (cont.)	08:00 - Ex. #3-3 (cont.); noon - Office: work on Ex. #3-3	08:00 - Office: work on Ex. #3-3; noon - Ex. #3-3 Due pm - Field review
5-Jul						
08:00 - Drive to Socorro via Albuquerque airport; #lunch						
*Twenty-four hour clock: 13:00 = 1:00 pm; 14:00 = 2:00 pm; 15:00 = 3:00 pm; 16:00 = 4:00 pm; 17:00 = 5:00 pm; 18:00 = 6:00 pm; 19:00 = 7:00 pm; 20:00 = 8:00 pm; 21:00 = 9:00 pm; 22:00 = 10:00 pm; 23:00 = 11:00 pm; 24:00 = midnight;						
# meals paid for by students						

Last Updated on 3/17/2009
By DJohnson

NEW MEXICO TECH SUMMER FIELD GEOLOGY COURSE 2009

Equipment

last updated on: April 15, 2009

Equipment: what you need and where to get it.

Equipment for Field Camp need not be expensive, but it can be. You can spend over \$50 on a fancy hydration pack or use a recycled plastic soft drink bottle. Both work equally well. A Gore-Tex rain jacket might start at \$150, but I prefer my nylon poncho. The choices (and the \$\$\$) are yours. Below are pointers to several sources for field equipment. Use these if you need to, but feel free to purchase your equipment where you get the best deal - locally if it is from someone you trust. **Where should you not skimp?**

Boots: I recommend that you do not purchase boots at Walmart or similar discount stores. Rather use a store that specializes in hiking and hiking boots. Put them on in the store and spend some time walking around in them. Make certain that boots are comfortable and well fitting. And they should be rugged enough for the summer. Many of the modern 'high tech' boots need little in the way of breaking in. None-the-less, be sure to wear your boots for several days before you come to field camp.

Socks (and blisters): Every year we have a few students who suffer from blisters. Proper fitting boots play a big role in avoiding blisters. One aid is wearing two pairs of socks - one pair that is shear and the other a heavy weight boot sock. I use very thin nylon dress socks that I wouldn't be caught dead in otherwise. If you have money to burn, silk or polypro liner socks are available. The idea is that slip will occur between the socks, not between your foot and the sock. If you know that you are prone to blisters, you may wish to bring [moleskin](#) and a [blister kit](#).

Infections, boots and socks: Hot sweaty feet in the same boots day after day are an open invitation to bacterial and fungal infections. If you have two pair of boots, I recommend that you alternate between them each day. I understand that this is expensive and not realistic for most students. A cheaper insurance policy is to never put on dirty socks for a second day. Always wear clean socks. Assume that you will contract [athlete's foot](#) sometime during field camp and bring along your favorite medication to treat it.

Poison Oak: While we are on the subject of health issues, I might point out that [poison oak](#) (or ivy if you are more familiar with that term) occurs in areas where we will be working in Northern New Mexico. Many of us are quite susceptible to this plant. Obviously the best remedy is to know what it looks like and to avoid exposure. If that fails, there are now some fairly effective [remedies](#). We've used [Tecnu cleanser](#) and have had pretty good success.

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- Geology 480 Field Equipment [list](#).
 - Outdoor outfitters: raingear, packs, hydration systems, boots ...
 - [Campmor](#)
 - [Forestry Suppliers](#)
 - [L.L. Bean](#)
 - [Recreational Equipment Inc.](#)
 - [REI Outlet](#) - discounted outdoor clothing and equipment (overstocks and closeouts)
 - [Sierra Trading Post](#) - discount outfitter (overstocks and closeouts)
 - Geology Equipment: field notebooks, rock hammers, hand lenses ...
 - [ASC Scientific](#)
 - [Ben Meadows Co.](#)
 - [Forestry Suppliers, Inc.](#)
 - [Kooter's Geology Tools and Supplies](#)
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