

FIELD CAMP SURVIVAL GUIDE: Required Gear & Overview

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I. Field Camp Overview

The below paragraphs will give you a brief description of what we experienced and learned during GSU geology field camp. Please refer to the following table for an overview of the Field Camp experience, by topic. This guide was created by people who have already been to field camp and who want you to have the best experience that you can while there:

Topic	Description
Introduction	Geology field camp is a very exciting time and will hopefully provide memories and experiences that will last your entire life. It won't be easy, but with some preparation you will be ready to learn effectively despite the many challenges Southwest Montana presents. The purpose of this article is to describe life in Dillon, MT, as it applies to field camp as well as give you a solid list of essential gear, supplies, and clothing you need to survive for 6 weeks in Montana. I will also share a little of my experience from driving to Dillon from Atlanta during the summer of 2007.
Dillon, MT, Overview	Dillon is a dusty, arid town of approximately 4,000 people. It is roughly the same base-level as Denver, CO (the mile-high city.) It is located in Beaverhead County which is larger in area than Rhode Island and Delaware combined. Due to its remote location, Dillon does provide many services such as convenience stores, two grocery stores, music store, coffee shop, a few restaurants & bars, hotels, a Montana visitor center, hair salons, etc. However, almost everything closes around 5:30pm MT meaning that you won't have much time (if any at all) to pick up missing supplies while in Dillon. Furthermore, you will be staying in a dormitory with geology students from all over the country, and they had picked over the town in 2007 as they were on campus before we were. So be sure to have all your supplies prior to coming to Dillon (listed in section II below.) The reason we use Dillon for field camp (as opposed to Georgia) is that all the structural features are represented & preserved there, and there is little vegetation to hide them. A second reason is that many instructors learned the geology of the Dillon area when they were in Field Camp as students, so they choose to teach it here since they are familiar with the terrain. In Georgia we have way too much moisture and vegetation to see any rocks at all, unless we go to a fresh road cut.
Dillon Weather	Montana weather is highly unpredictable. It was below freezing when we arrived at the end of May 2007. It rained & snowed while we were in the field in May and June. On July 5 th 2007, it was 107 degrees F in Dillon, and we were mapping in the field anyway. You will be outside from 8am – 4pm everyday: whether it is rain, snow, hail, sun, extreme heat, or lightning. You will only get 4 to 5 off days during a six week period. You work during weekends. It is imperative that you have the right gear for multiple weather conditions. You can't afford to get sick or injured.
Dorm Life and Dorm Food	You will be on a very small campus with other geology students from all over the country. You will have to share community bathrooms and showers (with private stalls.) It is not much more money to have a single (compared to a double) room, but you may even have a roommate (from GSU of course) if you opt for a double room. There are TV lounges, but they often get taken over by other students with different tastes. There is a pool, pizza place, gym, library (w/ free computer access and printers),

Topic	Description
	bookstore, and a student center on campus. You are a 10-minute walk from Dillon's business district that closes early. The dorm is small and dusty, and the heaters are always on making it stuffy at times. The cafeteria provides an all-you-can-eat hot breakfast and dinner. You make your own lunch. You can get a small refrigerator for a small amount of money. Many people gain weight during field camp because they are so tired and hungry after hiking all day. If you have any food allergies, make sure to call the cafeteria in advance (see course's web site for contacts). They will accommodate you with some notice. They pretty much serve potatoes and beef at every meal, but you also get a salad bar and other side dishes.
Having fun in Dillon and the surrounding area	You will most likely be tired during your off-days; however, there are plenty of local activities in Dillon to keep you occupied. Check the Montana Visitor's Center (short walk from campus) to get a pulse on local activities. If you are driving, there are many state parks and national forests close-by. Some of us went to a local hot spring, a ghost town, rock-collecting site, and toured Butte & Missoula, Montana. Glacier National Park is about a 5-hour drive and makes an excellent trip during the 2-day off period, that is, if you have the energy to drive. For those not driving: the Dillon movie theater has a choice of 2 movies; there's a good library (you can check out DVDs) and a gymnasium on campus; and touring Dillon on foot can be fun – who knows what you might find! And there's plenty of space on campus to play kick-ball or Frisbee! And of course, you may just want to rest and relax during your off time!
The Field	So what will you be doing almost everyday for six weeks? You will be given a topographic map, which you must carry around along with your clipboard, pencil, eraser, and field notebook every single day. You will also need your backpack to carry your water, food, and gear. You will map few sections of the topographic map each day, and you will be drawing lines – in pencil – on this map. You will make mistakes, so you will be constantly correcting your lines. You will climb mountains and ridges and scour valleys to identify rocks and lithostratigraphic units. (Be prepared to hike across very rugged, steep, and unstable terrain.) I had a very hard time with rock unit identification because the rocks I saw in the classroom were in perfect, unweathered condition. In the field the rocks are highly weathered, covered with lichens, come in many different colors and textures, and often are impossible to tell apart without a keen knowledge of stratigraphy. It is imperative that you pay attention to your instructor when he describes the rock units, and please ask many questions. Make sure you know the stratigraphic order of your rock units.
The Road/ Field Trip	In summer of 2007, we spent eight days and eight nights in Yellowstone National Park and surrounding area at the beginning of June. (Tetons, Cody, and the Beartooth Mountains.) We camped every single night (a record!); and it rained, snowed, and hailed in Yellowstone. We went some days without showers, and we had to eat out a lot because the wrong type and amount of food was purchased. We took elaborate notes in the rain, snow, and hail, and wrote geopoetry in addition to taking geological notes. We made multiple stops each day (sometimes more than 20 stops made in a day) where we had to get in and out of school vans. People brought so much equipment that we couldn't see out of the windows, and there was little room to stretch out in the vans. Yes, we had much fun, but there were some tense moments.

Topic	Description
	<p>IF YOU HAVE NEVER CAMPED IN A TENT BEFORE:</p> <p>1) <i>The camp.</i> I highly recommend you get some camping experience prior to this trip. You will need to test your gear against high winds and rain. Some tents did blow away in the Tetons. Some tents got wet at Yellowstone. Some students didn't bring the right gear/clothes, and froze in Yellowstone – they had to sleep in the van.</p> <p>2) <i>Food.</i> You will also need to imagine what kind of food to buy when you camp in a different place each night. People bought milk and cereal – these are not good if you are changing locations. You need to bring food items that are non-bulky, easy to prepare, don't require dishes, and don't need refrigeration. You will be glad that you did. Bread, tuna, fruit, and granola bars are easy to transport. Raw meat, watermelons, coffee creamer, and soup require extra care and time to transport.</p>
<p>Those other geology students in the dorm</p>	<p>We had the opportunity to meet other students from Idaho, Montana, Arkansas, Alabama, Mississippi, Oregon, Washington, West Virginia, and Pennsylvania to name a few. Each school has a different program than Georgia State's. Some seem much easier than ours. Keep in mind that we are learning how to map in a very thorough way. We are taught so we could map if dropped off via helicopter in the wilderness. Some schools may just observe road cuts or map from aerial photos. Keep in mind that there are many approaches to mapping. By doing it the "old fashioned" way, I found that I learned quite a bit. Be respectful of other students' programs, even if they seem remedial at best.</p>
<p>Your map, cross section, legend, and report</p>	<p>For each mapping project, you will produce four items: map, one or more cross sections, legend, and report. You must start your work early because it is time-consuming; and you won't have time to complete it all if you commence the night before the deadline.</p> <p><i>For your map,</i> you will draw lines in pencil showing rock unit boundaries, folds, faults, and unconformities. You will label everything and then ink over your pencil lines to make the changes permanent. You will erase your pencil lines and color in each rock unit with the appropriate color schemata determined by the instructor (available on course's web site).</p> <p><i>Your cross section</i> will be generated directly from the map that you have drawn. It is best to draw pictures (sketch or rough cross sections) in your field notebook as you go along the cross section line. Although drawing these sketch cross sections are time-consuming and difficult, they will save you time at the end, and help you visualize and draw the folds and faults in your cross section before you actually start drawing your section.</p> <p><i>For your legend,</i> if you know all the rock types, and paid close attention to the rock descriptions, you can generate this quickly. Make sure that everything on your legend is in proper stratigraphic order and that all the units are actually on the map you're working.</p> <p><i>The report</i> describes everything you have mapped in the field. If you have no idea what is going on in the field, this will be evident in your report.</p>

II. The Gear

The following tables will give you an explanation of everything you need to bring and WHY you need these items. Please read over this carefully. *Helpful Hint:* Go to REI and talk to a knowledgeable woodsy-person. Then go elsewhere to save money on some of the equipment (like High Country, Bass Pro Shop, Dick's Sporting Goods, Sports Authority, Wal-Mart, etc.)

1. Field Gear & Clothing

The following table lists items you will need in the field during your mapping experience. Please read carefully and come to Dillon prepared:

Field Gear & Clothing Item Name	Why you need it!	Tried-and-True Brands	Helpful Alternative/ Hint
"Walkie-Talkie"	You will be in small groups, and the field is a large place. You will need these in case you get lost or if you need to communicate with the instructor. Within your group, you can use this to inspect large areas without everyone needing to go to the same place at once.	Many brands out there	None. Cell phones won't work in the field. Get a walkie-talkie that has a range of over 30 or more miles. We have about 10 walkies that we can lend. Buying one is not required but advised.
100% LEATHER Hiking Boots	You will be hiking and climbing all day long through rocks and cactus. The cacti here have very sharp spines that will go right through tennis shoes and non-leather boots. Your foot will get punctured. There are also rattlesnakes everywhere in the field. Leather boots will protect your feet and ankles from a snake bite. Make sure to get high-quality boots as you will be in rugged terrain every day.	Asolo, Vasque, Keen	Wear your boots excessively prior to Field Camp to break them in very well.
Back Pack with waist belt and chest harness	You will carry your water, food, rain gear, supplies, first aid kit, toilet paper, and anything else you want to bring with you everyday. It is essential to get fitted for a high-quality pack that can endure being tossed around all day. Furthermore, you need something comfortable enough that you can wear for 7 hours a day and not get rub burns or aches. Take your time and get some help to pick out the perfect pack for you. REI has trained help who will get your started.	Osprey, NorthFace, REI, etc	None
Belt – synthetic	Use this to hold up your pants as well as attach your Brunton Compass to your pants.	Many brands out there.	
Bladder	Bladders can hold up to 3 liters of water. You can fill them w/ ice and water in the cafeteria on campus so that they will remain cool all day. At this high elevation and in the sun, you must stay hydrated all day. You can easily clean your bladder with vinegar.	Many brands out there.	Walk 20 minutes one way to Safeway and buy water bottles. You'll need several liters a day, and you'll spend lots of money. Or just get some Nalgene bottles.

Field Gear & Clothing Item Name	Why you need it!	Tried-and-True Brands	Helpful Alternative/ Hint
Camera	Take pictures of rocks and everything else.	Canon digital	This is the trip of a lifetime. You'll want pictures of it someday, so don't miss out!. You can also use your phone to take pictures.
Carabingers	Use these to attach loose items to your back pack. I used mine to attach my walkie-talkie and GPS unit.	Many brands out there.	Put your loose items in your pack.
Clipboard – or clip “box”	You will need a clip board to secure your map, as well as your notes, aerial photos, rubber bands, pencil, eraser, stratigraphic table, etc. It's best to get a rectangular box with a clipping mechanism on it.	Office Depot	Do NOT get a metal clip “box.” It has rough edges that can cut you, and it will reflect the bright light on your face. No one liked their metal boxes. A plastic box is perfect!
Field Notebook – 2 bound copies	You need one field notebook for your field week and another one for your elaborate notes during the field/ road trip. Please note that the professor will hold on to your books for a few weeks for grading, so make sure to have 2.	Write-in-the-Rain Geological Field Book	Make sure it is a waterproof notebook. The Geological version has helpful tables in the back.
First-Aid Kit	You will fall, slide, bruise, cut, etc. while in the field. You could be bit by a snake. Make sure to add all your medicine (allergies, asthma, etc.) to your kit in the event you become sick in the field. It could take you hours to get back to the hospital in Dillon from our remote locations in the field.		You can add anything you want to a pre-packaged kit. You can even make your own!
Fleece (synthetic polar)	Fleece will not freeze when wet, nor will it lose its warming properties. Coupled w/ a rain coat, the fleece is a great winter coat alternative.	NorthFace, REI, Mountain Hardware, Patagonia, etc.	None
Gloves	Keep water and wind off of your hands. I got a Mountain Hardware synthetic glove that did the trick. Remember, you will be taking notes outside, so get gloves that you can write with and that are water resistant.	Mountain Hardware, REI	None
Hand Lens – 10x preferred	You'll need this to tell the difference among igneous, metamorphic, and sedimentary rocks.		You may want to affix the lens to a cord to wear around your neck so that it is quickly and easily

Field Gear & Clothing Item Name	Why you need it!	Tried-and-True Brands	Helpful Alternative/ Hint
			accessible. The quicker you move through the field, the better off you will be.
Hiking Pants – must be synthetic	Jeans perform poorly in the field when wet or sweaty. It is best to get pants that are designed for hiking through the wilderness and climbing mountains. You also need UV protection for your legs against the sun. If you get convertible pants, you can unzip them into shorts on hot days. You need something that can dry very quickly if it gets wet.	Many brands out there.	Jeans or khakis.
Hiking Shirts – synthetic	Cotton t-shirts perform poorly in the field when wet or sweaty. Make sure to get BOTH short and long sleeved. The sun is very bright here and can damage you easily. It is best to get shirts that are designed for hiking through the wilderness and climbing mountains. You need something that can dry very quickly if it gets wet.	Many brands out there. ExOfficio makes excellent long-sleeved shirts, but they are an expensive brand.	Synthetic Athletic shirts will work (Nike, Adidas, Body Armor, etc.)
Hiking Underwear – synthetic	You don't want to get chaffed. Make sure to apply a Glide stick or Gold Bond powder. Cotton underwear doesn't perform well in the field.	Many brands out there.	
Hydrochloric Acid	Believe it or not, it is sometimes impossible to tell limestone and fine sandstone apart in the field. You will need this to be sure what rock you're mapping.	GSU rock lab	This is for those driving (not flying). If you drive bring extra for all.
Large plastic bag	To put your map and notes into during rain storms. You don't want your map ruined.		Trash Bag or 2-gallon sized Ziploc bags.
Nalgene bottle	I would fill my 2 Nalgene bottles with Gatorade and ice every morning. Nalgene is indestructible and comes in many colors. This way you can buy the color that best matches your favorite drink (the cafeteria doesn't want you taking food so you have to be sneaky.)	Many brands out there.	Bladder/ normal bottles of water.
Rain Cover for Back Pack	Keeps rain and wind off your backpack. You don't want the contents of your backpack to get soaking wet if it rains all day.	REI	You can put a trash bag over your pack.
Rain Jacket	Keeps rain and wind off your body.	Mountain	None

Field Gear & Clothing Item Name	Why you need it!	Tried-and-True Brands	Helpful Alternative/ Hint
	You can put this over your fleece to protect you from intense wind and cold. You won't really have space to bring a bulky winter coat, so couple this with your fleece to make a coat.	Hardware, Marmot	
Rain Pants	Keeps rain and wind off your body. You will be walking all day. If your pants get wet, you could get seriously chaffed. These will also keep you warm in high, cold winds.	Mountain Hardware, Marmot	Tie a trash bag around your waist.
Rock Hammer	You will need this to break apart your rock units to get a "clean cut." Everything is weathered, so you need to go deep into the rock to get a clean surface for analysis.	Many brands out there.	Use a rock in the field to bang against the rock
Rock Hammer Sheath	To protect you from your hammer as well as clip onto your belt or day pack.	Many brands out there.	
Rubber Bands	Get big, thick, wide rubber bands. You will need these to secure your map and notes to your clipboard, especially during high wind	Office Depot	People had their maps ripped due to intense winds. Make sure to secure your map!
Safety Pins	You must have these to pin stations (i.e., punch holes) on your map. It's best to bring several. Also good for repairing torn clothes.		
Sandals	After a long day of hiking, your feet will be swollen. Sandals are quite refreshing to wear until bedtime!	Teva	Wal-Mart cheapies
Sun Hat	Protect your scalp and hair from the sun. Either a tie-down hat or a baseball cap will work. This also keeps the bright sun off of your face. The wider the brim, the better off you will be in the bright, hot sun towards the end of field camp.	Many	None – please bring a hat!
Sunglasses	To protect your eyes from intense sun and wind. I wore mine everyday.	Many	Wear a hat
Sunscreen – waterproof AND sweat proof	You must have this. Given the elevation and thin air, it is very easy to get burned around Dillon. Students in past years have gotten sun poisoning and second degree burns.		None
Synthetic Sock Liners	You wear these between your wool socks and your feet. You will get blisters if the wool socks rub directly on your feet.	Any will do.	Just double up your socks or wear synthetic white socks underneath

Field Gear & Clothing Item Name	Why you need it!	Tried-and-True Brands	Helpful Alternative/ Hint
Thick Wool Socks	You will need several pairs of thick wool socks. I prefer the SmartWool Brand. You will be hiking all day long and need to protect your feet against blisters. Wool socks also don't lose their warming powers when they get wet. You don't want your feet to freeze!	Smart Wool, Wigwam, REI	None
Tupperware	If you choose to eat lunch, you'll need these plastic containers to protect your food against pressure and the arid climate. I would take fruit and yogurt from the cafeteria for my lunch.	Many brands out there.	Just put your lunch in your pack and hope it doesn't get squished.
Watch	You'll need this to tell the time to ensure you make all your daily destinations on time.	Many	Do NOT bring your cell phone to the project areas. Someone lost theirs. Plus you don't get reception in the field anyway.

2. Camping

The table below lists items you'll need to your road trip/ camping experience. Keep in mind that some of these items can be shared to conserve space.

Camping Item Name	Why you need it!	Can be shared?	Helpful Alternative/ Hint
Compression Sack	For those flying and driving, these are great for reducing the size of your load. Also helps to keep all your clothing and bedding in one place.	No	
Cooler	For those driving, this is a necessity. You'll want cold water, sodas, etc. We really didn't use our coolers beyond the first few days. It was cold enough outside!	Yes	Take one if you're driving; otherwise, they should be provided by the school.
Ear Plugs	It can get noisy out in the woods. I didn't need these, but others did to get a good night's sleep.	No	
Fleece Sleeping Bag Liner	The liner adds much warmth to your sleeping bag. Make sure to bring one, so you won't shiver all night long. They're only \$9.99 at Wal-Mart and extremely versatile, great to use alone when camping in warm weather.	No	I am cold-natured, so I need to bundle up. You may find that you don't need a fleece liner.
Lantern, Flashlight, and/or Head Lamp	You'll need a lighting device for setting up camp at night and for walking to the restroom – that is, if there is one! A light that can be affixed to your head also can be helpful when you need both hands.	Maybe	

Camping Item Name	Why you need it!	Can be shared?	Helpful Alternative/ Hint
Money – Cash, Debit, ATM, and/or Credit Card	We ended up eating out a lot on the roadtrip, but we did chip in money for group groceries such as paper products, water, and other items (~\$50). Plus you'll probably want to buy souvenirs. We stopped at a rodeo and went to Wal-Mart. We also found a pay shower (\$3.25 in 2007) at Canyon Village in Yellowstone that has the potential to be the best shower of your LIFE. We understood that Field Camp groups in previous years lodged in hotel rooms when the conditions were unfavorable. Be prepared to share the cost of a room, in case you have this option. Regardless, make sure to have plenty of spare money on you.	Yes	
Pillow	The dorms have flimsy, cheap pillows. Either use those or bring your own.	No	If you bring a compression sack full of clothes, you can also use that as a pillow to save space.
Sleeping Bag – Mummy Style	Given the cold weather, a mummy-style bag would be best. Get one rated to at least 20 degrees F or lower (I recommend a 0 Degrees if possible). The mummy bag will keep cold air off your face and protect against drafts. Plus, these pack much tighter & lighter than rectangular bags.	No	Do NOT get a down bag. Once wet, down loses all of its warming properties, and you will freeze. Only get a synthetic bag.
Sleeping Pad	The ground will suck all heat out of your body. Make sure to buy a water resistant/ proof pad (also cheap inflatable kinds out there.) There will also be rocks under you while camping, so the pad will make sleeping easier.	No	None
Stove	You only need this if you are going to stay at the same site for multiple nights. Otherwise, it is a hassle to transport this.	Yes	Plan w/ your instructor before leaving.
Tarp (or tent foot print)	It goes under the tent to keep water from coming up through the base of the tent	Yes	None
Tent	Make sure to get a tent that meets the following criteria: wind resistant, water proof rain fly that goes all the way to the ground, external aluminum poles (to prevent breakage) that clip on to the exterior of the tent.	Yes	You can save money on a tent, but talk to a professional. It was very wet and windy in the area's we visited in 2007.
Toe Warmers	Handy for those super cold days and nights. They are small, charcoal-filled packets with an adhesive backing that can be attached to the bottom of your socks for added heat. They are air activated, last for several hours, comfortable when worn with shoes/boots,	No	Can be bought at sporting good stores such as REI or Sports Authority.

Camping Item Name	Why you need it!	Can be shared?	Helpful Alternative/ Hint
	and can make a freezing cold night more bearable.		
Toiletries	Bring your shampoo, moisturizer (body and lips), sunscreen, your medicine, your toilet paper, and anything else you may need for a long road trip.	No	Makeup wearers – not many people wore makeup on the trip or in the field. Bring light makeup to save space.
Towels	Yes, you <i>may</i> get a shower. We went a few days without showering. Make sure to either bring towels or a camping towel.	No	
Wet wipes	For those days when showers or even sinks are not available. Baby wipes are perfect though unscented is preferred so you do not attract bear!	Yes	Also great for the field for washing your hands before lunch.

3. Mapping Supplies that you must bring.

Below is a list of items that you will keep in your dorm room. You will need these things in order to finish your mapping project(s.)

Mapping Item Name	Why you need it!	Helpful Alternative/ Hint
Colored pencil set (get largest available)	Your map is graded on both accuracy and aesthetics. You need as many reds, blues, greens, and yellows as you can get. Each rock unit must be a different shade of these four basic colors.	Get a Crayola 128 colored pencil set (or larger) to save money. Use the rubber bands to keep your pencils together by color type.
Fabric pencil pouch	To keep your expensive pens and pencils in one place.	If you work in groups, people will borrow your stuff. It may never come back. It's best to be highly organized!
Graph Paper (inch or metric based)	You need this for both your legend and your cross section.	I used the light blue inch-based paper and had an easier time making my cross section. The green mm-paper is very cumbersome.
Mechanical Pencils	You need these to draw on your map. Get something that is very easy to erase. You don't want to damage your map. Get a few different hardnesses of lead.	
Pencil sharpener	To sharpen your colored pencils as needed.	
Protractor	To ensure that strikes that you measure in the field will point the right way on your map as you draft them, and to accurately show dip angles.	
Rapidograph-TYPE Pens (black equivalent of 1, 0,	You will use the black pens (very fine) to draw your map lines, unit	You don't have to buy rapidograph pens. Just an

Mapping Item Name	Why you need it!	Helpful Alternative/ Hint
and 00; red, and blue) that contain high-quality India ink	names, and strike/dip symbols. The lone red pen is used for faults. The lone blue pen is for fold symbols (I also used my blue pen for the report.)	equivalent to save money. Copic pens sizes 0.3, 0.35 and 0.5 are equivalents to the rapidograph pens.
Rectangle/Square Stencils	To make legend boxes for all your rock units and symbols.	This is optional. I just used a ruler to do my legend boxes.
Ruler w/ MM scale	You will need a straight edge for drawing purposes. You will need a ruler to help draft your profile plane portion of your cross section.	
Scotch tape	For your stereonet, as well as repairing your map.	
Stereonet	Use the one you made in Structure class.	
Tracing Paper	For stereonet, as well as tracing your map and profile planes for practice.	Get paper with some vellum in it.
Vinyl eraser	Get a good eraser to remove all lead from your map after you have inked it. Same for your cross section.	
White Out	You will be making mistakes when you ink and label your map, especially if you're up all night trying to cram. Make sure to have this!	The white out with the pen tip is the best.

4. Miscellaneous Optional Items

The below items are optional; however, please read.

Optional Item Name	Why you may need it!	Helpful Alternative/ Hint
Bedding & Pillows	The dorm provides bedding and pillows; however, they are of the lowest quality and of the scratchiest material.	
Cell Phone	Cell reception isn't too good in Dillon. It didn't look like there were many pay phones, so you might need a cell for emergencies. You can get a free phone, when you check in, in your room to receive calls.	NEVER take your cell phone into the field. You don't want to lose it out there.
Desk Lamp	The lighting is bad in the dorm. Just neon lights overhead.	
Ethernet Cable	High speed internet access is available in the dorm rooms. However, Ethernet cables are not provided. Bring your own if you want to surf the 'net.	
Fan	Even in the winter, the dorm room is excessively hot. I got a big fan and	Even a small box fan is helpful.

Optional Item Name	Why you may need it!	Helpful Alternative/ Hint
	was glad I did, given all the heat and dust. .	
Jeans & Modest Clothes	You may go see a movie or go to the tavern, but whatever you do there is NO NEED to dress up in Dillon. This is a ranching town, and it is very laid-back.	
Laundry Detergent	You'll need this if you don't bring enough clothing to last at least 6 weeks (please don't, you won't have enough space!!!). Your instructor or teaching assistant will take you to the grocery store to purchase this if you don't have a vehicle. This can be bought in Dillon.	The dryers will shrink your clothes if you're not careful – generally 30 minutes on "low" was enough to dry a full load of clothes. There are only 4 washers and 4 dryers, so plan accordingly. Remember: you are sharing these with 100's of other students, so don't wait until the last minute to do laundry. If you do, the best time is, unfortunately, between 6 and 7 AM.
Makeup	It is hot and dusty in Dillon. The locals really don't wear makeup. This is completely optional.	
PE/ Workout clothes & swim suit	There is a gym on campus. You might want to exercise. There is also an indoor pool for swimming.	
Power strip or splitter/adapter	Outlets are scarce in the dorm rooms. You may consider bringing an adapter (which makes at least three receptacles out of one). Remember that you will probably bring many things with you that need charging overnight (cell phone, camera battery, walkie-talkies, rechargeable batteries for your GPS unit, etc.) as well as those items that stay plugged (e.g., refrigerator). There were only 3 outlets (or 6 total receptacles) in the dorm rooms which would have to be shared if you have a roommate.	
Quarters	The vending machines accept dollars, but there are no change machines in the laundry room. It is difficult to get to the banks while they are open, so bring quarters with you or send them with a friend who is driving. Each load you wash and dry requires \$2.50 (\$1.25 for each machine, 2007 prices), so budget approximately \$30-\$40 in quarters for your laundry (assuming ~2-3 loads washed and dried per week for six weeks).	Some businesses such as the pizza place on campus or the Dairy Queen across the street were kind enough to exchange bills for quarters. Safeway would also let you purchase rolls of quarters; however, it's best to have a stash just in case.
Refrigerators	Available for rent through Student Services for \$5/week in 2007. This option is less expensive than buying	If you did bring a cooler, you can get free ice from the cafeteria staff during breakfast and dinner to save money.

Optional Item Name	Why you may need it!	Helpful Alternative/ Hint
	cold drinks from the vending machines or bags of ice for a cooler.	
Shower Caddy	To carry all your showering material together at once	
Tennis Shoes	You may prefer these to sandals	

III For those Flying

Dillon, MT doesn't have an airport. Few people flew into Salt Lake City, UT; however, this town is a 7-hour drive from Dillon. A better alternative is Butte, MT, which is roughly an hour's drive from Dillon. Professors and TAs arrive to Bozeman on the 5th of June. If you book your flight to Butte well in advance, you should get a decent flight.

If you can't fit all your stuff in your bags, check with students driving to see if they can carry additional items for you. It's best only to bring what you need for field camp as space is limited. We tried to list everything you need in the tables above, and some bulky items – like tents and camping gear – can be shared. You honestly won't have much free time, so there is no need to bring frivolous items.

IV For those Driving

Several groups of people drove in last year. Some students make it a trip by driving for 7 days and camping for 6. Usually this allows them to visit national parks and monuments in the Southwest USA. Make sure to buy a yearly pass to the National Parks. We drove back to Atlanta via North Dakota and down through the Great Lake States to avoid the intense summer heat, and we had fun. If you are driving, pick the route that best suits you and your objectives. Also give yourself plenty of extra time to get to your destinations. Since we had a caravan, the walkie-talkie's were a life saver as we often got separated. It was very windy in the Great Plains, and my Jeep was blown all over the road. I had to drive much slower than everyone else. One park was completely booked, so we had to scramble in the dark desert to set up a camp site a night.

There is safe parking on campus in Dillon. There are also car washes in town. You will encounter much dust on your drive, and your car will be caked in bugs. Be sure to bring extra window washer fluid so that you can quickly remove those bugs. There are places to get service and oil changes in Dillon. Check with the visitor's center to get phone numbers.

Whether you plan to camp or check-in to a hotel on your drive, plan ahead. The West is very remote and often the hotels book up quickly. The camp sites fill up on the weekends, so be sure to call ahead and make reservations for any weekend/ holiday travel.

V How to Get Along and Survive Field Camp

Keep a positive attitude at all times. Be prepared for very long days and nights, and rest assured that the experience will be both mentally and physically exhausting and challenging. Always be willing to share information and help other students (within reason). You will be together in close quarters for long periods of time, and there is no need to be rude to each other. Keep lines of communication open and talk about issues when they arise. It's best to work in small groups, as the amount of work can be daunting at times. If you must work alone, be willing to talk with others often to be sure that you're not off-base in your mapping. Remember that this is a learning experience, and that it is okay to make plenty of mistakes – indeed that is the only way to truly learn how to map. Many of us had no idea how to map or produce a cross section prior to field camp, and this is perfectly normal. You will have some evening classes to learn

these skills, and you can always discuss your learning needs with your instructor or teaching assistant. Your instructor and fellow students will be there to guide you, but the work must be your own in the end.