

FIELD GEOLOGY EQUIPMENT CHECKLIST

Essential Field Gear

Field text book as assigned (see p. 2)
10x hand lens (best: Hastings Triplet)
Rock hammer (~22 oz.)
Two (2) field notebooks (see p. 2)
Two technical pens (widths: 0.25mm, 0.5mm)
Two -mechanical pencils (0.5mm)
Replacement pencil lead (0.5mm)
Stick-style eraser
Two Plastic ruler-protractors (bookstore)
Sharpee/permanent marker
Set of colored pencils (at least 12)
Safety pin (for marking maps/photos)
Pocket knife (2-4" blade)
Small first-aid kit
Sturdy field boots (see note above)
Two liter canteens or water bottles
Waterproof-breathable parka
Sun hat
Sun glasses
Sun screen (SPF 30 or greater)
Wrist/pocket watch/phone
Field back-pack
Field belt – w/non-magnetic buckle (to carry compass/pouch/etc.)

Recommended Field Gear

Wind/rain pants
Large waterproof garbage bag for pack
Leather work gloves
Hammer holder for belt
Small binoculars
Camera (or phone)
Photo scale
Plastic box/organizer for drafting supplies
Field pouch (for notebook/pencils)

** Customized Plateau Designs field pouches with the MSU Field Camp logo will be available for purchase at the beginning of field camp.*

Expendables to Bring

Quality drafting vellum 8.5"x11" (50 sheets)
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Essential Personal Gear

Duffel/backpack
Field clothing
Underclothing & work socks
Cold-weather clothing layers (sweaters etc.)
Warm hat
Warm winter coat
Warm gloves or mittens
Personal toilet kit
Prescription medicines, contact lenses, personal health needs
Sleeping bag
Tent (share w/1-2 friends if possible)
Towel/washcloth

Recommended Personal Gear

Camp/town clothing
Camp shoes or sandals
Reading book, stationary, stamps
Travel alarm clock/phone
D-cell headlamp/flashlight & batteries
Laundry bag & detergent
Camp chair or stool
Musical instruments (compact)
Compact toys (frisbee, ball, fly rod, slackline)
Radio/iPod/phone/personal stereo

Equipment Supplied by MSU

<i>These items will be signed out to you and must be returned in good condition.</i>	
	Brunton or Silva compass
	GPS or altimeter (as needed)
	Tablet computer/iPad (as needed)
	Acid dropper bottle
<i>These items are yours to keep</i>	
	Field Course Manual – spiral bound
	Plexiglas map board

Expendables Supplied by MSU

Base maps, air photos, etc.
Stereonet/equal area template/thumbtack
Cross-section paper
10% HCl

** DO NOT bring large coolers, camp stoves or cooking gear. Meals and all cooking gear and dishes are provided. You may bring a small personal cooler and/or small backpacking stove.*

Textbooks

1. **Geological Field Techniques (2012) Coe, Angela, Wiley-Blackwell, 336 pages.**
 - MSU Bookstore: <http://www.msubookstore.org/home.aspx>
 - Wiley-Blackwell (publisher): <http://www.wiley.com/WileyCDA/WileyTitle/productCd-1118445082.html>
 - Amazon: <http://www.amazon.com/Geological-Field-Techniques-Angela-Coe/dp/1444330624>
2. **MSU Geology Field Manual** (distributed at start of field course – no charge)

Equipment Recommendations

- **Field Notebooks.** Need two (2) copies, at least 100 pages each. Should have ruled pages on right for notes and cross-section gridded pages on left for sketches. Good choices include: *Rite-in-the-Rain Geological Field Book* (No. 540F) – special water-resistant paper, includes geologic reference material in back, expensive. *Sokkia Engineer's Field Book* (N. 8152-30) – trig, math and slope reference in back. *Forestry Suppliers Transit Field Book* (# 49361) – Good value.
- **Hand lenses (10x).** Hastings Triplet provides has best optics, but Coddington-type or doublet lenses are also great choices. Look for quality metal construction for durability.
- **Drafting pencils & pens.** High-quality mechanical pencils and drafting pens are the best choice to draw consistent, precise lines. Re-fillable *Rapidograph*-type pens (e.g. *Rotring*, *Koh-i-Noor*) make the best lines, but are expensive and difficult to maintain. Good felt-tip drafting pens by *Micron*, *Pentel*, and *Prismacolor* are good options. I like pencils with large erasers and a thick barrel like *Pentel Twist-Erase*, but other prefer thin pencils with tiny erasers... whatever works for you.
- **Colored pencils.** *Prismacolor* and *Verithin* pencils are the best for precise and consistent color. *Verithin* have hard lead and are best for use in the field. *Prismacolor* have softer lead that is better for coloring large areas and 'office' use. Get both if you can afford it. *Verithin* if you want to save.
- **Drafting Vellum.** Get good quality translucent drafting vellum with 100% cotton fiber like *Clearprint Design Vellum*. Cheap 'onion-skin' tracing paper is OK for some uses, but is unacceptable for stereonets and final work of any kind.
- **Field Pouches.** Highly recommended to keep your notebook and pens/pencils close at hand. Light-weight nylon pouches (e.g. *Plateau Designs*) are the most versatile, although some prefer leather cases (e.g. *Gfeller Casemakers*). We will have the outstanding *Plateau Designs* field pouches with the MSU field camp logo for sale at the start of field camp.

Equipment Suppliers

Bozeman

- **MSU Bookstore:** Text, drafting equipment & supplies, field notebooks (*Rite in the Rain*), etc. <http://www.msubookstore.org/home.aspx>.
- **Selby's Engineering Supplies:** Wide selection of drafting supplies, field equipment, field notebooks, GPS receivers, topo maps etc. 525 Professional Drive, 587-9597. <http://www.selbys.com/>.
- **REI:** Outdoor gear. 2220 Tschache Street (N. 19th), 587-1938. <http://www.rei.com/>.
- **Sportsman's Warehouse:** 2220 Tschache Street (N. 19th). <http://www.sportsmanswarehouse.com/>.
- **Northern Lights:** Outdoor gear. 1716 W. Babcock, 586-7544. <http://northernlightstrading.com/bzn/>.
- **Bob Ward's:** Outdoor gear. 3011 max Avenue (N. 19th – Target shopping center). 586-4381.

Online

- **Miners Supply:** Good variety of geology-specific gear <http://www.minerox.com/>.
- **Forestry Suppliers:** Field gear, field notebooks, drafting supplies, compasses, GPS receivers, etc. <http://www.forestry-suppliers.com/>.
- **Ben Meadows:** Field gear field notebooks, drafting supplies, compasses <http://www.benmeadows.com/>.
- **Dick Blick:** Drafting supplies (good prices) <http://www.dickblick.com/>.
- **Adventure Medical Kits:** First aid kits & supplies <http://www.adventuremedicalkits.com/>.