

GENERAL INFORMATION
Applied Geologic Field Methods, 2009
51-342, 2 credits

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Pre-Trip: There will be a few informal meetings for filling out forms and trip organization prior to departure for the Black Hills. All students are required to become certified to drive University vehicles (or at least try to become certified). Students are also required to read and sign field trip waiver forms prior to departure.

Required Text: Compton, 1985, Geology in the Field.

Field Book: *Rite in the Rain* No. 540f or equivalent. These are available at the bookstore.

Grading: Grades will be based on my evaluation of your work and class participation.

Project 1	10%
Project 2	20%
Project 3	40%
Field Notebook	20%
Geologic History	10%

Transportation: By University vehicles, in caravan.

Itinerary (somewhat tentative):

In general terms the curriculum is as follows.

Day #1

- Depart Oshkosh for Badlands.
- Review regional geologic provinces
- Camp in Badlands NP at Cedar Pass Campground, SD

Day #2

- Field notes, outcrop description, outcrop sketches, field description of sedimentary rocks, field trip on the stratigraphy of the Badlands & Black Hills.
- Camp at Pactola Reservoir or Sheridan Lake BHNF, SD

Day #3

- Field description of metamorphic rocks, field trip in the Precambrian core of Black Hills
- Camp at Ditch Creek or Sheridan Lake Campground, BHNF, SD

Day #4

- Project 1: Strike and dip measurements, working on a topographic base, elementary geologic mapping on a topographic base, review Brunton compass-strike, dip.
- Camp at Belle Fourche River Campground (Devils Tower), WY

Day #5

- Field description of volcanic/intrusive rocks, introduce Precambrian to Paleozoic stratigraphy in detail.
- Camp at KOA near Deadwood, SD (Shower)

Day #6

- Project 2: Pace and compass mapping and cross-section interpretation, review topographic profile construction and apparent dip.
- Camp at Bear Butte State Park Campground, BHNF, SD

Day #7

- Bear Butte traverse, work on Project 2
- Camp at Roubaix Lake Campground, BHNF, SD

Day #8

- Project 3: Mapping and cross-section interpretation
- Camp at Roubaix Lake Campground, BHNF, SD

Day #9

- Project 3: Mapping and cross-section interpretation
- Camp at Roubaix Lake Campground, BHNF, SD

Day #10

- Project 3: Mapping and cross-section interpretation
- Camp at Roubaix Lake Campground, BHNF, SD

Day #11

- Project 3: Mapping and cross-section interpretation
- Camp at KOA, Kennebec, SD

Day #12

Drive to UW Oshkosh

Cost (estimated): \$430.00

This is a "fixed" cost in that it includes items that should be the same for everyone. The principal variable is the number of people who will be going. Should actual expenses be less than this you will get a refund when we get back; if they are greater (I don't expect they will be) I will have to bill you.

Food:

You are responsible for food costs on the trip. Costs will depend on how you feed yourselves. We will divide into cook groups. We will eat fast food for meals (at least for dinner) on the way west. This will keep our road time down each day. Food costs can be reduced by spending less and by bringing your own food so as to avoid restaurant meals. We will discuss this more in class.

Payment:

Payments should be made at the Cashier's Office in Dempsey; you should indicate that they are to be deposited in the "Geology Spring Field Trip -Paulsen" account. The account number is: **355**. GET TWO RECEIPTS; one for yourself and another for ME. Give me the receipt as soon as you have paid (put it in my mailbox in an envelope if I am not around). Checks should be made out to the University of Wisconsin Oshkosh.

Equipment:

Clothing: Days and nights will probably be cool. The average May high temperature is 64 with an average low of 39 for Deadwood, SD. We will be

camping at higher elevations than this, so there is potential to be even cooler. We could have snow, freezing rain, or sun. You should plan to protect yourself from the elements, especially the cold and rain/snow with rain gear, long sleeves, long pants, and a decent hat. Sunglasses are a must for the bright light outdoors.

Gloves may be handy, perhaps in climbing, perhaps to keep your hands warm at night or during the day.

Sturdy leather boots are necessary. Tie-ons are better than slip-ons, high tops better than low cuts because of spiny plants. You should bring two pairs of footwear, whether 2 pair of boots or 1 boots, 1 shoes.

Personal

Items: The usual soap, etc., but you also might want chapstick, aspirin, toilet paper, hand lotion, alka seltzer, sunglasses, sunburn lotion, towel, washcloth, hand lotion.

Radio/
tape player:

If you want to listen to music while traveling. Please no BOOM boxes or speaker; we don't have the space and don't want to necessarily hear the music.

Field
Equipment:

Canteens or plastic bottles --enough for about 3 liters of water, notebook and pencil, rock hammer (although it can't be used in the Parks), hand lens, a day pack, masonite board, black art pens, colored pencils, drafting tape are required. Optional, but worthwhile is a camera.

Camping
Equipment:

Everyone should bring a sleeping bag and sleeping pad. A flashlight is very useful; you might want to share one with a friend. The remainder of the equipment will be arranged with the whole group and includes: tents, camp stoves, coolers, cooking kits (including pots, cups, silverware, can opener, sharp knife, spatula, iron frying pan, plastic dishpan, etc.), gas lantern.

Food:

While enroute we will stop at restaurants for some meals (this is to be discussed). You may spend what you wish. I would recommend that you pack a large lunch before leaving --that should get you through a few lunches and save you some money.

While camping we will do our own cooking. We will form one food group. We should have two 2-burner gas camp stove, one cook kit, and three coolers. Three to four gas lanterns (e.g. Coleman) would be nice. Students will be responsible for making sure all of the equipment works before we leave. I would suggest that we bring an extra generator for both the stove and lanterns and, especially, extra mantles for the lanterns.

We will be dividing into two cook groups, each group is responsible for planning the menu for the class for 5-6 days (breakfast, lunch, and dinner), before departure and purchasing the necessary groceries (for the first part of the class). We will shop at local grocery stores for later parts of the class. Each group will be in charge of preparing and cooking the meals it has planned. The group not cooking on any given day will be responsible for clean up of gear once everybody has eaten. *Everybody is expected to help with the work.* Food will have to be packed carefully to save space and avoid spilling. Use boxes, not bags, and your cooler.

A list
of equipment

tent (find someone to share with if you don't have one)
sleeping bag (don't share bags)
pad or air mattress
day pack/backpack
water bottle (s) for 3 liters
waterproof bag for clothes
misc. raincoat, hat or umbrella
sturdy shoes or hiking boots
comfortable clothing (t-shirts, sweatshirts, jeans)
long underwear is imperative!
warm coat (it may be cold?)
high neck sweater
wool socks (it may be cold?)
gloves
towel, wash cloth, soap (we will be able to shower twice during the trip)
wet wipes?
flashlight with new batteries
knife, fork, spoon
plastic plate, plastic bowl, plastic mug, silverware
camera?
toiletries
underwear (optional)
prescription medicines and ibuprofen/pain relievers
field notebook & pencil (no spirals please)
cash (junkfood, etc)
hand lens/10 power mag
pocket knife
a good attitude (this is be fun and educational!)

Health:

General: If you take any special medicine, bring it along. You are urged to have complete medical and dental checkups before the class. Minor complaints may be amplified under the stresses of heat, altitude, and hard work at in the field; they should be taken care of in advance. You should have shots for tetanus if not currently protected. No special immunizations are required, but it's always good to be immune to tetanus.

YOU ARE RESPONSIBLE FOR ALL MEDICAL EXPENSES WHILE IN THE CLASS. (THE UNIVERSITY AND THE FACULTY HAVE NO RESPONSIBILITY FOR MEDICAL EXPENSES OF THE STUDENTS NOR MEDICAL INSURANCE FOR STUDENTS.)

ACTIVITY OR FIELD TRIP WAIVER

Agreement for Assumption of Risk, Indemnification, Release, and Consent for Emergency Treatment

I, _____ (print name), age _____, desire to participate voluntarily in Geology 342 (Applied Geologic Field Methods, Black Hills, South Dakota) sponsored by the University of Wisconsin – Oshkosh.

I UNDERSTAND THAT I AM BEING ASKED TO READ EACH OF THE FOLLOWING PARAGRAPHS CAREFULLY. I UNDERSTAND THAT IF I WISH TO DISCUSS ANY OF THE TERMS CONTAINED IN THIS AGREEMENT, I MAY CONTACT DR. TIMOTHY PAULSEN, AT TELEPHONE NUMBER 920-424-7002.

Assumption of Risks:

I understand that Geology 342, by its very nature, carries with it certain inherent risks that cannot be eliminated regardless of the care taken to avoid injuries and/or illness. I am aware of the risks of participation, which include, but are not limited to, minor injury, such as bruises, contusions, broken bones, concussion, and catastrophic injuries, such as paralysis and even death. I understand that UW-Oshkosh has advised me to seek the advice of my physician before participating in the above-listed activity. I acknowledge that I have been advised to have health and accident insurance in effect and that no such coverage is provided for me by Carl Scott (Rose Quartz Mine), the United States USDA Forest Service, UW-Oshkosh, the Board of Regents of the University of Wisconsin System, or the State of Wisconsin (collectively, the “Releasees”). **I know, understand, and appreciate the risks that are inherent in the above-listed activity. I hereby assert that my participation is voluntary and that I knowingly assume all such risks.**

Signature: _____ **Date:** _____

**Signature of Parent or Guardian
(If Participant is under 18):** _____ **Date:** _____

Hold Harmless, Indemnity and Release:

In consideration of my participation in these activities, I, for myself, spouse, heirs, personal representatives, estate or assigns, agree to defend, hold harmless, indemnify and release the Releasees and their officers, employees, agents, and volunteers from and against any and all claims, demands, actions, or causes of action of any sort on account of damage to personal property, personal injury, or death which may result from my participation in the above-listed activity. This release includes claims based on the negligence of the Releasees, and their officers, employees, agents, and volunteers, but expressly does not include claims based on their intentional misconduct or recklessness. **I understand that by agreeing to this clause I am releasing claims and giving up substantial rights, including my right to sue.**

Signature: _____ **Date:** _____

**Signature of Parent or Guardian
(If Participant is under 18):** _____ **Date:** _____

Consent for Emergency Treatment:

I authorize UW-OSHKOSH and its designated representatives to consent, on my behalf, to any emergency medical/hospital care or treatment to be rendered upon the advice of any licensed physician. I agree to be responsible for all necessary charges incurred by any hospitalization or treatment rendered pursuant to this authorization.

Signature: _____ **Date:** _____

**Signature of Parent or Guardian
(If Participant is under 18):** _____ **Date:** _____