

Wilderness & Civilization Field Studies

Forestry 273, Spring 2008, 2 credits

Course meets Mondays (9am or 1:30pm), most Fridays, and occasional additional days, please see schedule.

Instructors

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Course Description

Forestry 273 is an experiential course designed to develop your capacity to observe, describe, and interpret the natural world and human/land interactions. The course takes place outdoors during weekly naturalist walks, field trips around Montana, your phenology study, and a ten-day wilderness river expedition. Field journals are used as a forum to describe observations and interpret relationships between human and ecological systems. The goal of this course is to develop observation skills that will assist you in reading the landscape not only in Montana, but wherever you call home or go from here. Each student on this course will:

- sharpen field observations skills of ecosystems across Montana;
- build knowledge of Montana's plant and animal species;
- document natural history events and seasonal ecological changes;
- describe and interpret the connections between people and local ecosystems;
- develop new skills in field journaling; and
- teach an environmental education lesson.

Course Requirements

Evaluation

Participation	10%
Field Journals (Due March 17 and April 30)	75%
Friday Trips (8)	25%
Weekly Walks (8)	25%
Species List	10%
Phenology Notes (8)	15%
Environmental Education Lesson (Due on the Missouri River)	15%

Students will receive an N (course in progress) grade at the end of Spring semester. Final course grades will be submitted after the Missouri River trip.

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at <http://www.umt.edu/SA/VPSA/index.cfm?page?1321>.

Participation (10%)

Participation is a critical component of field studies. We visit places around western Montana and meet with a variety of people who generously share their time with us. Your participation will be evaluated on your active engagement, careful listening, full involvement, questions/comments during field trips, and on your timeliness and preparedness.

Absence: You are allowed one excused absence during the semester and do not need to make up a field note entry for that trip. Your absence must be excused by Laurie or Sarah before the trip. Additional absences result in no points for that field note. You do have the option to make up additional absences by completing a field note and receiving up to half credit for that field note. You need to attend 8 Weekly Walks during the semester.

Field Journals (75%)

Due dates: Monday, March 17, and Wednesday, April 30

Why keep a field journal?

There are many reasons to keep a field journal that range from recording scientific facts for research to finding inspiration for a piece of art or literature. In general, a field journal is an important tool that will help you to better see and understand the natural world. Below are a few more reasons why field journaling is important:

- Sharpens your observational skills
- Helps you build knowledge of the land (i.e. ecological literacy)
- Documents natural history events
- Slows you down so you can appreciate nature's detail, beauty, and complexity
- Helps you rediscover and/or develop all your senses by engaging with nature
- Transforms you into a better naturalist, artist, poet, writer, scientist, and neighbor
- Make connections between places, critters, and your reflections on them
- Develops your eye--you will never see the world in the same way
- Develops your skills as a naturalist that you can build on for the rest of your life
- Helps you be present in the moment

Field Journal Requirements

During the Spring semester you will be required to do four types of entries in your field journals. We suggest that you divide your journal into four sections:

1. Friday General Field Notes
2. Weekly Walks Naturalist Field Notes
3. Semester Species List
4. Phenology Study

We will often facilitate field notes in some way, shape or form, in order to help focus your entries as we encounter different environments throughout the year. We provide you with a general outline of what to include in a good field note (see below), however, you are strongly encouraged to add other questions, observations, etc. that interest you and help make your journal more meaningful.

Field Journal Orienting Information

Each Field Note needs to include the following *Orienting Information*, be consistent and specific in how you report this information.

- Date, time of day, weather (wind direction, temp, sky cover)
- Location (directions: general and specific)—Describe your location so that someone reading your journal could find your location, or so that *you* could re-find that specific location years from now. It is a way of documenting where you are in place. It should include directions to your location, starting from the landscape level and focusing to the local level. In addition, please include information such as land ownership, watershed, mountain range, basin/valley, habitat, aspect, elevation, roads, towns, and any other creative way you want to demonstrate location.

-An example would be:

Location: Northern Rocky Mountains, Montana, Missoula County, 4 miles north of Missoula, Rattlesnake Mountain Range, 'South Zone' of Rattlesnake Recreation Area, 2 miles north on River Corridor Trail, east bank of Rattlesnake Creek. Additional info: riparian habitat, elevation 3,600 feet. Rattlesnake Creek is a municipal watershed for the city of Missoula. The Rattlesnake flows into the Clark Fork which flows in the Columbia River and to the Pacific Ocean.

1. General Field Note

Our Friday and weekend field trips will take us around Montana to explore a range of conservation issues and ecosystems. You will meet with people who will describe the local ecology and tell you about the political, historic, and cultural influences that shape the ecology and conservation efforts of that particular region. A field note is due for all trips except the

Document your observations and interpretations from these trips using your own creative style. Be sure to capture what you found to be significant points made by the speakers, in addition to your personal observation. Use creative drawings, diagrams, color, words, and other techniques. In order to encourage you to diversify your field journal and be

creative, you are required to include (in addition to orienting information) at least one of the following assignments in each of your field journal entries:

1. An event map
2. A series of Contour Sketches or Modified Contour Sketches
3. A full page drawing and text spread (a journal entry that takes up both sides of your journal)
4. An original poem or creative writing inspired by being in the field
5. Species Observations--An entry of two species (plant or critter) according to the outline below

We encourage you to try all of the above at some point during the semester.

Species Observations Guidelines

Plants/trees/shrubs/grasses/etc.— observations include:

- Common name(s) and Scientific name
- Describe three distinguishing characteristics (consider some of the observation guidelines for “Adopt-an-Organism” on page 4)
- A field sketch of some distinguishing part (cones/fruit/needles/etc.) or the whole plant and label parts if necessary; include the scale that the plant (or part of plant) is drawn at (i.e. 1/2 life size), and reference any guide book used in helping your field sketch
- Describe habitat plant was found growing in (what are the other plants growing with it, wet or dry site, aspect, canopy cover, soil, etc.)
- Explain why you choose these particular plants
- Include any interesting facts, observations, or questions (e.g. plant is native or invasive, Latin name comes from Lewis and Clark, plant has been browsed on by elk or is a favorite food for grizzly bears, etc.)

Critters that you see/hear or find signs of— observations include:

- Common name and Scientific name (or general description if name unknown)
- Describe distinguishing characteristics if you saw critter, or describe signs that indicated the critters presence
- Sketch critter or some sign of critter that is relevant and meaningful to the encounter. If you actually saw critter try and draw from memory or use field guides to fill in the blanks. If you saw a track or scat, then sketch that.
- Give a habitat description and include what the animal was doing there, or why you think it was found in particular habitat

2. Weekly Walks Naturalist Field Note (8 walks, Mondays 9am or 1:30pm)

Weekly Walks provide an opportunity for us to explore the natural world right here in Missoula each week. Consistent observation of what composes our home is something many of us may aspire to but rarely take the opportunity to do; now is your chance... This is a good time to practice field sketching and other field journaling skills if you get inspired.

You are required to complete eight *Naturalist Field Notes*.

For each entry, include:

- Detailed orienting information and
- Detailed notes on the assignment or topic of the week.

3. Semester Species List

By the end of the semester, create an alphabetized species list; with the species first, then where **you** saw it, and the date. Either one list or sub-divided into species types is fine (i.e. trees, shrubs, flower, lichen, critters). Then, if you see it again somewhere else, just add the place and date to the entry. That way you get an idea of the distribution, etc of the species. Example: Douglas Fir, *Pseudotsuga menziesii*; NCNP, 9/1-9/8; Lolo Peak, 9/28, etc.

- If you want to type the species list, that's fine, or however works best for you in order to alphabetize it. If you want to 'roughly' alphabetize the list, that is fine too, i.e. have all the 'A's together, all the 'B's together. That way you can set aside pages/ sections of pages in your journal for each letter and add species as you go. Either way is fine, as long as the species are ordered.
- Remember to add in any animals you see!
- Check spelling on plants and animals

4. Phenology Study (8 records)

This is a study of change over time in the natural world. You must choose a specific place to study over the semester. This will be your corner of western Montana to notice the subtle, detailed changes and shifts in season – when a tree leafs out, when birds are active, when ice melts and creeks swell. This will be a detailed record of the site-specific changes you observe as the seasons progress. Visit your site once a week, for at least a half-hour. Make sure you select a spot that you can visit easily and regularly. It should be somewhere with some natural biological diversity (ie not your backyard or a playground). The Clark Fork River trails, Greenough Park, Mt. Sentinel, Mt Jumbo, or any of the other Missoula trails or parks are wonderful locations close by. **You are required to complete eight phenology notes, no more than one per week (i.e. spread out the study over the semester).**

For each record include:

- **Orienting information**
- **Detailed observations:** notes, sketches, description of what is going on at your site. Describe what you see or hear. Describe bird calls, songs, and/or activity. Notice if there are tracks in your area, sketch the trees and buds. Note especially changes at your site. When do you first notice snow melt? New leaves? Different birds? Green color or other colors? Be as specific as possible to the minute changes you observe over the semester.
- **Reflections:** Ask questions about what you see and record them. What interactions do you observe? Why do they happen? What do you not know about what you see? What species are new? Why are new species now observable?

Journal Grading and Evaluation

You will not be marked down for things like artistic ability, but we will be looking for improvement and evidence that you are challenging yourself. Here is a list of the specific categories you will be graded on:

- Completeness (followed the full assignment)
- Observation skills (paid attention to the land, species composition, ecological processes, and trip speakers)
- Organization (entries organized with clear and thorough Orienting Information)
- Thoughtfulness
- Making connections (exploring the relationships among place, ecology, people, history, etc.)
- Getting your journal in on time

Please Note: We always try to give you some time on the Monday walks and Friday/weekend field trips to start your field notes. However, there is not enough time on the trips, and so it is expected that you will finish your journal entries as homework.

Environmental Education Lesson (15%)

You will be required to design and lead a 15-minute environmental education lesson on the Missouri River trip. This lesson needs to relate to the natural or cultural history of the Missouri River. The format of the lesson is up to you. The Wilderness Institute has resources on the Missouri River that might be helpful.

Possible topics include aspects of the Lewis and Clark journey, cottonwood ecosystems and floods, sagebrush, geology of the white cliffs area, geology of the badlands area, Native American history, early trapper history, ethnobotany, beaver ecology, Canada geese, white pelicans, big horn sheep, pallid sturgeon, steamboat history, early white settlement, the Big Open, meadowlarks, the Wild and Scenic River designation, National Monument designation, wilderness study areas and their status, the Charles M. Russell National Wildlife Refuge, dams and agricultural irrigation, and much more.

You will need to be prepared to give your lesson at any time during the trip; research and other preparation must therefore be done while in Missoula. Please feel free to ask for ideas regarding sources of information and presentation/teaching methods. The leaders on the Missouri River will evaluate your presentation based on accuracy, relevance to the region and program topics, your ability to make connections between your topic and what we've studied this year, and the creativity of your presentation. Due on the Missouri River Trip, see further guidelines on the assignment sheet.

Wilderness & Civilization Field Studies
Schedule of Field Trips Spring 2008
meeting times/places subject to change

January 25	Missoula's Waste: Wastewater Treatment Plant, Super Wal-Mart, Pacific Recycling, Landfill <i>9:00 AM Depart from Motor Pool (9:00-4:00)</i>
February 1	Green Building and Design <i>9:00 AM Depart from Motor Pool (9:00-5:00)</i>
February 8	Winter Tracking in the Rattlesnake <i>8:00 AM Depart from Motor Pool (9:00-5:00)</i>
February 15-18	Yellowstone Field Studies <i>6:45 AM Depart from Motor Pool; return by 9:00 PM on Monday.</i>
February 22	No Field Trip
February 29-March 1	Community-based Conservation – Blackfoot and Swan Valleys <i>9:00 AM Depart from Motor Pool (return 6:00 PM Saturday)</i>
March 7	No Field Trip
March 14	Private Lands Conservation <i>9:00 AM Depart from the Motor Pool (9:00-5:00)</i>
March 21	No Field trip—Friday before spring break
March 22-30	Spring Break
April 4-5	Optional Field Trip—Yaak or Rocky Mountain Front <i>Times TBA</i>
April 11	Local Food System <i>9:00 AM Depart from Motor Pool (9:00-5:00)</i>
April 18-19	Tribal Natural Resource Management and Owl Ecology—Mission Valley <i>8:00 AM Depart from Motor Pool (return 6:00 PM Saturday)</i>
April 25	Riparian Ecology and Conservation with Paul <i>9:00 AM Depart from the Motor Pool (9:00-4:00)</i>
April 28 (Mon)	Missouri River Preparation <i>9:00 AM Jacobs Island (9:00-2:00)</i>
May 2	Ancestral Skills <i>9:00 AM Depart from the Motor Pool (9:00-5:00)</i>
May 11-20	Missouri River (Coal Banks Landing to James Kipp State Park) <i>7:00 AM Depart from the Motor Pool. Please see Missouri River Information Sheet for details. Return about 9:30 PM on the 20th.</i>