

ENST 396: SUPERVISED INTERNSHIP: ETHNOBOTANY & NATIVE PLANT STEWARDSHIP

Spring 2016

PFNAC 103

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Internship:

Natural Areas of the University of Montana include over 650 acres of undeveloped land on Mt Sentinel and Fort Missoula. These lands are managed for specific natural area values including biodiversity of plants, preservation of wildlife habitat, availability for research and education areas, and recreational pursuits. Natural Areas of the University of Montana also include landscaped areas on campus such as that surrounding the Payne Family Native American Center.

Student interns will work on campus and on UM's Natural Areas. Students will learn about ecology and conservation of native plants and invasive species, landscaping with native plants, restoring natural areas, stewardship and management of natural areas and ethnobotany of Native peoples. This is a hands-on internship working outdoors with native plants and in UM's Natural Areas, combined with academic work and an individual project. Students will meet weekly with instructors, plus work 6 hours per week on a project on campus.

INTERNSHIP LEARNING OUTCOMES:

By the end of the internship the student will be able to;

- 1) Identify native and invasive plants of Montana and the region.
- 2) Improve intellectual skills of critically and efficiently reading, summarizing and analyzing scholarly and scientific works.
- 3) Improve communication skills, listening to others, and speaking publicly.

Types of Work:

PFNAC Gardens: Weeding, mulching, pruning. Helping to select appropriate new species to add to the garden (there is theory behind every good garden) and then procuring, transplanting and watering them. Maybe supervise other volunteers participating in these activities. Develop interpretative system for the garden.

Mt Sentinel: Remove invasive species (knapweed and hound's tongue), spread native grass seeds. Maybe supervise other volunteers participating in these activities. Probably just 2-4 outings on Mt Sentinel. Possibly on one or two Saturdays if this is desirable for the group; we

can invite other students from ENST 101 to join in the work since they all have to do 10 hours of community service.

Native Gardens Webpage: updating, adding new material and creating new public interpretation handouts and maps as PDF's for the website.

Public Interpretation: create new signage, maps and/or materials for public use of the PFNAC Native Gardens and the "Circles of Life".

Collaborate with other off-campus entities: We might also get an opportunity to work with the City of Missoula's native plant nursery.

Expectations:

Attendance is MANDATORY. Students must attend the weekly discussion group and work 6 hours per week as defined by course Instructors. The 6 hours per week of work is FLEXIBLE in terms of when it is to be completed, but you cannot defer this work until later in the semester.

Equipment

Students will work outside. Students should be prepared for the weather and wear appropriate clothing, wear close-toed shoes, bring gloves and be prepared to get dirty.

Field Trips

We plan to schedule on-campus and on-UM field walks. We hope to also schedule a field trip to the Confederated Salish and Kootenai Tribes' reservation.

Required Readings

Jeff Hart. *Montana Native Plants & Early Peoples*. Montana Historical Society, 1996.

Judith Larner Lowry. *Gardening with a Wild Heart: Restoring California's Wild Landscapes at Home*. University of California, 2007.

Marilyn Marler. University of Montana Natural Area's Management Plan. Spring 2015.

And additional readings as assigned.

Optional Readings:

Any Rocky Mountain plant identification book with color photographs. (Such as Linda Kershaw's *Plants of the Rocky Mountains* (Lone Pine Field Guide), Lone Pine, 1998.)

Attendance

"Students are expected to attend all class meetings and complete all assignments for courses in which they are enrolled. Instructors may excuse brief and occasional absences for reasons of

illness, injury, family emergency, religious observance or participation in a University sponsored activity.... Instructors shall excuse absences for reasons of military service or mandatory public service." <http://www.umt.edu/catalog/acad/acadpolicy>.

Student Conduct Code

"Being a student at UM presupposes a commitment to the principles and policies embodied in the Code." http://life.umt.edu/vpsa/student_conduct.php.

Disability Student Services

Appropriate accommodations will be made by the University pursuant to the policies of the Disability Student Services, <http://life.umt.edu/dss>.

Schedule

Part One: Native Plant Stewardship & Public Interpretation

Week 1

- 1/26 Please watch the film Great Plains: America's Lingering Wild, Episode 1: A Long Hard Struggle (1 hr.) & Episode 2: We Live with the Land (1 hr.) on PBS.org.
- 1/28 Native Plant Stewardship & Ethnobotany of Montana & Rocky Mountains

Week 2

- 2/2 Native Plant Stewardship & Ethnobotany & Public Interpretation
- 2/4 Please be prepared to discuss our reading: Marler, UM Natural Area's Management Plan. Assignment #1 due before class.

Week 3

- 2/9 Native Plant Stewardship & Ethnobotany & Public Interpretation
- 2/11 Please be prepared to discuss our reading: Lowry, pp. 1 -73.

Week 4

- 2/16 Native Plant Stewardship & Ethnobotany & Public Interpretation
- 2/18 Please be prepared to discuss our reading: Lowry, pp. 77-168.

Week 5

- 2/23 Class moved to 2/24 at 8pm (required), 3:10pm (optional) Vandana Shiva presentation
- 2/25 Please be prepared to discuss our reading: Lowry, pp. 171-218. Assignment #2 due before class.

Part Two: Montana's Ecoregions & Ethnobotany

Week 6

- 3/1 Readings: Hart, pp. 1-39. (First 15 plants in Hart's book.)
- 3/3 Scheduled work time.

Week 7

- 3/8 Readings: Hart, pp. 40-67. (next 15 plants.)
3/10 Scheduled work time.

Week 8

- 3/15 Readings: Hart, pp. 68-109. (next 15 plants.)
3/17 Scheduled work time.

Week 9

- 3/22 Readings: Hart, pp. 110-144. (last 15 plants.)
3/24 Scheduled work time.

Week 10

- 3/29 Assignment #3 – Oral & written report of Eco-regions & Ethnobotany of Circle
3/31 Scheduled work time.

Week 11

SPRING BREAK

Part Three: Public Education/Interpretation**Week 12**

- 4/12 Public Education/Interpretation: Students will prepare to share environmental, ethnobotanic, and scientific information with the general public at the Kyi-yo Pow-wow at a “Native Plants” class table.
4/14 Scheduled work time.

Week 13

- 4/19 Public Education/Interpretation
4/21 Scheduled work time at the Kyi-yo Pow-wow on the 22nd and 23rd.

Week 14

- 4/26 Outdoor: Public Education/Interpretation
4/28 Scheduled work time.

Week 15

- 4/3 Outdoor: Public Education/Interpretation
4/5 Scheduled work time.

Week 16

- 5/10 Final meeting. Assignment #4: Portfolio of public education/interpretation due.

Assignments

Attendance & Participation (60 points, 15 weeks @ 4 points per week)

Part One: Precis of readings (10 points, 2 readings @ 5 points)

Part Two: Oral and written report of students Circle (10 points, oral report @ 5 points, written report @ 5 points)

Part Three: A portfolio of student work will be turned in for review. Of new written signage for PFNAC garden, updating website, sharing information (Public Education) at Pow-wow (20 points)

Grading:

Final Grade based on a percentage of Total Points (100).

The work you submit for grading must be your own original work, written by you specifically for this course and individual assignments. Any acts of plagiarism or academic dishonesty will result in **automatic failure of the course**, and may result in **further academic punishment**.

Assignments:

Attendance & participation. An Internship is a place for collective learning, and collective learning requires active listening, thoughtful speaking, group work and active participation. Attendance is required. (60 points, 15 weeks @ 4 points per week).

Part One – Assignments #1-2 – Precis of readings (10 points total). Student's will both summarize the assigned readings for the week and reflect on (how does the reading affect your thoughts or ideas) the readings. (800-1,000 words per precis)

Part Two – Assignment #3 – Oral and written report of the Eco-regions & Ethnobotany of student Circle (10 points total). Students will be assigned specific areas within the Garden at the Payne Family Native American Center (or elsewhere on campus) to work on. Students will give a 15 minute oral report of what they have been doing and what they have learned (from the assigned readings on ethnobotany) about Montana's Native peoples and their relationship with plants. Students will also provide a written outline of their oral presentation.

Part Three – Assignment #4 – Public Education/Interpretation of Ecoregions & Ethnobotany (20 points total). Students will work in groups and individually to explore how to share environmental, ethnobotanic, and scientific information with the general public. Students should think creatively about how to best educate the public and interpret information about Native plants and ethnobotany (at the Pow-wow and with signage), via written field notes, printed placards, webpage information or even a smartphone application. A portfolio of student work will be turned in for review.