

**Paleoethnobotany Field Class**  
**University of Oregon Department of Anthropology & Museum of**  
**Natural and Cultural History**  
**and**  
**Burns District Bureau of Land Management**  
**July 7th – July 25<sup>th</sup>, 2014**  
**(Class meets 7:45 AM – 4:30 PM Monday-Friday)**

**Instructor:** Margaret M. Helzer, Ph.D.

**Advisory Staff:** Dr. Patrick O'Grady (University of Oregon)  
and Scott Thomas (Burns District BLM)

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**Credits:** 4

**Course Description:**

This three-week field class is designed to introduce students to methods associated with macrobotanical investigations at archaeological sites. The course provides a rare opportunity to conduct laboratory botanical analysis in a field setting. Students will gain hands-on experience building a modern reference collection as well as collecting, processing, and identifying seeds, charcoal and other plant remains preserved in the site.

The class will be conducted in association with the University of Oregon Archaeology Field School, directed by Dr. Patrick O'Grady. Students in the paleoethnobotany class will be working closely with the archaeology students excavating at Rimrock Draw Rockshelter (35HA3855). Together, the students will learn and discuss sampling strategies appropriate to the site. After the samples are collected in the field, the paleoethnobotany students will process and analyze them in the laboratory set up on site. Results will be shared and discussed with the excavation crew. In addition to facilitating a collaborative learning environment for all students involved, the on-site research and analysis should lead to a clearer understanding of the deposits during active excavation at Rimrock Draw Rockshelter.

**Course Objectives:** Students who complete this course are expected to have learned:

- how and why botanical samples are collected in archaeological sites.
- how to conduct flotation of archaeological soil samples.
- how to use a binocular microscope to sort botanical materials in a sample.
- how to identify hardwoods and softwoods from charcoal specimens.
- how to identify seeds and other plant remains preserved in the site.
- how to build a modern reference collection from local plants.

**Required Readings:**

Selected chapters from the following books will be compiled as a course packet for required readings. Students are encouraged to purchase the books separately for their own library, but are not required to do so.

Hastorf, Christine A. and Virginia S. Popper, editors 1989

*Current Paleoethnobotany: Analytical Methods and Cultural Interpretations of Plant Remains.* University of Chicago Press

Minnis, Paul E. 2002

*Ethnobotany: A Reader.* University of Oklahoma Press

Pearsall, Deborah M. 2009

*Paleoethnobotany: A Handbook of Procedures*, 2<sup>nd</sup> Edition. Left Coast Press, Inc.

Additional readings (books and articles) associated with the archaeology and paleoclimate of Oregon, as well as identification manuals, will be available to students during the three-week course.

**Grading and Expectations:**

This course is designed to introduce students to field and laboratory techniques associated with paleoethnobotany. The “hands-on” approach taken in this class will provide students experience with processing and analyzing macrobotanical samples from the Rimrock Draw Rockshelter excavation. Much of the work in the class will be collaborative in nature. Students will also keep a notebook or a journal throughout the class. Final grades will be assessed by the following criteria:

- participation and progress in the course
- general understanding of archaeobotanical techniques
- ability to work in a team setting
- notebook/journal

**Course Logistics:**

Class runs Monday-Friday from 7:45 AM – 4:30 PM. Most days we will be processing and analyzing soil samples in the field laboratory, set up near camp. We will also take a fieldtrip or two and make frequent visits to the excavation site. (See tentative schedule below for more details).

-Students are encouraged to refer to the UO Field School website for camping, personal gear, and other suggestions.

-We will be camping with the UO Archaeology Field School crew near Rimrock Draw Rockshelter. Since the archaeology field class runs for 6 weeks, and our class runs for 3 weeks, we will be joining up with the archaeology students when they will have already been in the field for a week. We will do our best to adapt to the established flow of the camp life already established.

-The cost of this class includes transportation and food. Students do not need to bring their own food. We will be sharing cooking and food preparation duties with the archaeology students.

-Students are welcome to stay in camp over the weekends. A van will be going to Eugene on Friday afternoons and back to camp on Sunday evenings.

-No illegal drugs, alcohol, or firearms are permitted in camp.

### **Tentative Schedule:**

#### Week 1

Day 1 Set up lab; visit site; Overview of paleoethnobotany

Day 2 Flotation demonstration / sorting samples / intro to seeds, roots, and bulbs  
Discussion: collecting samples, preservation issues

Day 3 Field trip – begin building a reference collection of modern plants

Day 4 Flotation / Sorting ... Intro to charcoal identification

Day 5 Flotation / Sorting ... Discussion: benefits of macrobotanical analysis – what can we learn?

#### Week 2

Processing of soil samples continue. Students will be using microscopes to identify seeds, charcoal and other plant remains in the samples. Modern wood collected in the field will be charred and used for reference.

Discussions during Week 2 will include climate fluctuations and their relation to shifting ecological zones.

#### Week 3

Day 1-3 Flotation, sorting, and identification continue.

Day 4 Complete sorting and IDs.

Day 5 Wrap up any loose ends, clean and pack up.

Discussions this week will focus on reflections: what have we learned about the site?

What questions do we still have? What recommendations do we have for future research?