Course Description and Objectives

This course offers a broad inquiry into the complex interactions of ecology and history, using the spatial context of the extensive Columbia River Basin. Ecology and History: Landscapes of the Columbia Basin is an interdisciplinary course involving scholars and experts from the Columbia Basin and from a wide variety of disciplines: science, law, anthropology, and history. These regional experts deliver lectures in a variety of formats with graphic illustrations to guide students through a chronological examination of the natural, physical, and cultural world of the Columbia Basin as it has evolved since its geologic formation. Students are asked to give special attention to the interface between humans and their surrounding landscapes and explore the wide-ranging, cultural disturbances that have taken place and the effects of those disturbances on natural processes and landscapes. Principles learned in this course can be adapted to other landscapes and regions of the world.

Students in this course will:

• Become acquainted with the diversity and characteristics of ecoregions of the Columbia River Basin.
• Trace the major events in the geological history of the basin.
• Understand the differences in the adaptation to ecoregions and natural resources by Native Americans, EuroAmerican settlers, and modern inhabitants of the basin.
• Learn basic concepts of landscape ecology dealing with time, space, and scale.
• Consider the connection between structure of the landscape and function of ecosystems within that landscape.
• Be able to explain human-induced changes in historical perspective.
• To be aware that historical/human influences on the environment have left lasting legacies.
• To understand that human perceptions toward natural resources and the environment have changed through time.
• Complete a theme-based or place-based historical reconstruction of a topic or site within the basin. Students living outside the basin may complete a comparable historical reconstruction of a local site.
Course Materials and Learning Resources

Websites:
The OSU Blackboard site ([http://my.oregonstate.edu/](http://my.oregonstate.edu/ "FW470_X400")) is a password-protected website for enrolled students to participate in discussion boards, communicate with other students and the instructors, and check grades.
The course Internet site ([http://oregonstate.edu/instruct/fw470](http://oregonstate.edu/instruct/fw470)) will be used to share information, maps, photographs, and historical reconstructions pertaining to the Columbia River Basin.

Required Readings and Course Materials:


Books


Articles

(These articles will be made accessible through the Blackboard website; no need to purchase.)

*Beyond Place: A Forum*  Oregon Historical Quarterly (Winter 2002)

William L. Lang, “Bioregionalism and the History of Place”

William G. Robbins, “Bioregional and Cultural Meaning: The Problem with the Pacific Northwest”

Mark Spence, “Bioregions and Nation States: Lessons from Lewis and Clark in the Oregon Country”

Government Reports for Reference


Student Performance and Evaluation

Midterm Essay Exam, Week 5  15%
1 hour, timed exam on Blackboard site
Covers all lectures to date and the following readings:
- Beyond Place: A Forum (Lang, Robbins, and Spence)
- Langston, Forest Dreams, Forest Nightmares
- Supplementary video: Grande Ronde, Bridge of the Gods
Graduate students will have a different selection of questions.

Final Essay Exam, Week 11  30%
2 hours, closed notes; must be returned by Friday of Finals Week.
Comprehensive – all lectures, previous readings, and the following:
- White (all)
- Lesley (all)
- Supplementary video: Portland Fish Story, The Oregon Story (Ranching), The Bureau that Changed the West
Graduate students will have a different selection of questions.

Written Report: Historical Reconstruction, Week 10  35%
Each student will write and illustrate an historical reconstruction of a "natural landscape" from some point in the past to recent times, tracing and explaining historical and ecological changes in the landscape and emphasizing the weekly themes covered in the course. Topics may be either place-based or theme-based and must be within the Columbia River Basin (with the exception of students who live outside the Basin). Detailed instructions and examples are provided on the website.

Sequence of Preliminary Assignments  5% Total

DUE BY WEEK 3: A well-conceived proposal (see example) with defined topic, map(s) of the study area, description of the ecological context, and list of preliminary references (3 page maximum; submit on Blackboard site).

DUE BY WEEK 6 (Monday): Updated and Annotated Proposal --based on instructor’s comments and conversations of original proposal and including fuller explication of the materials to be consulted and utilized. (5 page maximum; submit on Blackboard site).

DUE BY WEEK 9 (Monday): Submit draft of complete report to one other student; comment on another student's report (2 day turn around time, max.); if deemed necessary, submit draft to the OSU On-Line Writing Lab.

The final historical reconstruction written report is due no later than Wednesday of Week 10 in both hardcopy (paper) and digital formats.

Undergraduates The historical reconstruction should be a minimum length of 8 pages of text, typed,
double-spaced. Maximum length is 12 pages of text (plus maps, photos, and illustrations).  

_Graduate Students_ The historical reconstruction should be a minimum length of 12 pages of text, typed, double-spaced. Maximum length is 16 pages of text (plus maps, photos, and illustrations).

**Discussions 10%**

Students participate in moderated discussions of course themes and readings on the OSU Bckboard website (Discussion Boards).
Course Themes

Week 1. Introduction to the Course
a. Welcome from President Risser
b. Framing the historical and ecological context through a visual tour of the Columbia River Basin
c. An introduction to Landscape Ecology
d. Case Study: The changing landscape of Celilo Falls

2. Climate and Geology:
   a. Climate/weather patterns of the basin
   b. Volcanism
   c. Floods, Glaciation
   d. Paleocoeology

3. Native American Landscapes (ca 1800)
   a. Human agency and ecological modification
   b. Fire and other cultural (anthropomorphic) disturbances
   c. Natural settings and subsistence practices
   d. Native Americans: connections with nature

PROJECT PROPOSAL DUE

4. Epidemic Disease and the Demographic Make-over
   a. Exogenous diseases and native people
   b. Introduced flora and fauna
   c. "New" people and new values
   d. Alteration of fire regimes

Week 5. Cultural Disturbance Regimes: Land-based

6. Cultural Disturbance Regimes:
   Waterways
   a. Historical reconstruction and future restoration – Willamette River
   b. Historical reconstruction – Deschutes
   c. Salmonid species and anthropomorphic disturbances (1800s)
   d. Wetlands

7. Industrial Disturbances
   a. Large ungulates in the grasslands
   b. Steam technology and ecological change
   c. Industrial forestry

8. The Great Depression and the Large Water Projects
   a. Overview, ecological implications
   b. Engineering the Great River
   c. Reclamation of the Arid Columbia
   d. Water rights: Law and ecology

(OPTIONAL: SUBMIT PROJECT DRAFT FOR REVIEW)

9. Toward Systemic Ecological/Environmental Change (post 1945)
   a. Effects on aquatic life; salmon
   b. The advent of chemicals and synthetics
   c. Urbanization
   d. Overview/Summary of landscape change in the Columbia Basin

10. Implications for the future
    PROJECT DUE
        Questions of stewardship
        Roundtable discussion

Week 11. FINAL EXAM
Instructional Coordinators

William G. Robbins, Distinguished Professor, Department of History, brobbins@orst.edu,
Role: Instruction in Environmental History of the Northwest; assistance with questions on
course content pertaining especially to history and ecology; student evaluation.

Paula J. Minear, Director, Enrollment and Student Services, OSU Ecampus,
Paula.Minear@oregonstate.edu, 541-737-9116 or 800-235-6559
Role: Course Management; assistance with questions on course content pertaining especially
to ecology, fisheries, watershed or landscape processes; student evaluation.

Funding Support

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Agriculture, with assistance from OSU Distance and Continuing Education and Communication Media
Center, the Oregon Historical Society, Oregon Public Broadcasting, and the Center for the Study of
Columbia River History.

OSU Policies

Academic Integrity

Students are expected to be honest and ethical in their academic work. Academic dishonesty is defined
as an intentional act of deception in one of the following areas:
- cheating- use or attempted use of unauthorized materials, information or study aids
- fabrication- falsification or invention of any information
- assisting- helping another commit an act of academic dishonesty
- tampering- altering or interfering with evaluation instruments and documents
- plagiarism- representing the words or ideas of another person as one's own

Students with Disabilities

Students with documented disabilities, who may need accommodations, who have any emergency
medical information the instructor should know of, or who need special arrangements, should consult
with the instructor prior to the second week of the term.