

Principles of Applied Ecology

LA 441/541 • 4 Credits

Fall 2018 • Tu/Th 1:00 pm - 3:50 pm • 231 Lawrence Hall

Dean Apostol • Department of Landscape Architecture • University of Oregon
Office hours: Tues. 11-1 (or by appt.) • TBD • 503-318-5111 • dean.apostol@gmail.com

GE: Tori Murphey • Office hours TBD • vmurphey@uoregon.edu@uoregon.edu

Prerequisites: Undergrad: 1 course in ecology or biogeography. Grad: 1 course in natural sciences.
See the list of recommended [prerequisite courses](#) or contact the instructors.

Non-majors should contact the Landscape Architecture office to request enrollment at 541-346-3634 or archadvisor@uoregon.edu. LA 441 can fulfill requirements for ENV5 and ESCI majors, and for LA and ENV5 Minors. LA 541 can serve as a foundation course for the Ecological Design Certificate (ECD);



Course Objectives:

This course will provide tools and approaches to help the student build a foundation for applying ecological principles to landscape architecture/design, planning and natural resource management across a range of spatial scales and land-uses.

Tools provided will help the student build an ecological framework for design that can be applied in any landscape context or scale they are likely to encounter as working professionals or researchers.

By the end of the course, students will have demonstrated their ability to:

- Apply ecological concepts to solving design, planning and management problems
- Understand how natural resource based disciplines approach landscape and ecosystem problems
- Understand how native plants and animals can be incorporated within design, planning and land management problems
- Learn how to balance design for native species and ecological processes while addressing the human needs for aesthetic and functional surroundings
- Employ ecological concepts and design techniques across a range of scales and a variety of land uses, from urban areas to rural watersheds and nature reserves
- Begin to build a baseline of relevant literature

Course Mechanics:

The class will meet Tuesdays and Thursdays, and will include 2 all day Saturday field trips. The format will be lecture and interactive discussion. Some classes may include problem assignments (i.e. characterizing ecosystems, sketch mapping ecological flows). The class will explore applying ecology at smaller and larger scales over short to long time frames. Classes will include guest lecturers from a variety of fields who will present their work in applied ecology. **Students are required to participate in two full-day field trips, scheduled for Saturday 10/13 and 11/3. Final Project presentations will be held during the final exam period, Tues., Dec. 6, 12:30-3:30 PM; all students must attend.**

Textbooks and other readings

Required text:

Dramstad, W.E., J.D. Olson and R.T.T. Forman. 1996. Landscape ecology principles in landscape architecture and land-use planning. Washington, D.C.: Island Press. Available as hard copy or e-book.

Optional texts:

Johnson, B. R. and K. Hill. 2002. Ecology and design: frameworks for learning. Washington, D.C.: Island Press. Available as hard copy or e-book. Readings will be assigned. *You may wish to purchase the book. However, required chapters will be available on Canvas and there is a AAA Reserve copy for others.*

Apostol, Dean and Marcia Sinclair. 2006. Restoring the Pacific Northwest: the Art and Science of Ecological restoration in Cascadia. Available as E-book or Paperback from Island Press (<https://islandpress.org/book/restoring-the-pacific-northwest>). Readings will be assigned. Selected chapters will be made available on Canvas. A copy will be on reserve at the AAA.

Additional required readings will be available on Canvas. These are public domain documents, including management plans for natural areas.

Evaluation

Final project presentations will occur during the final exam period. Each student must attend.

The course is offered either graded or pass/no pass. All assignments must be completed satisfactorily and submitted in a timely fashion to achieve a passing grade. Written reading assignments count cumulatively as a single assignment. Students are expected to attend all classes and participate actively in discussions. Field trip attendance will be graded separately.

The university requires that graduate students fulfill requirements beyond those of undergraduates in 400/500 level courses. Graduate students will be required to complete additional reading assignments, and to exercise leadership in class sessions.

Inclusivity and Information for Students with Disabilities

The University of Oregon is working to create inclusive learning environments. If there are learning or health considerations that may affect your ability to participate fully in this course, please contact Prof. Apostol as soon as possible to discuss possible accommodations. Furthermore, please notify him if there are aspects of the instruction or design of this course that result in disability-related barriers to your participation, such as the field trip. You are also encouraged to contact the Accessible Education Center in 164 Oregon Hall at 541-346-1155 or uoaec@uoregon.edu.