

FORESTRY (FOR)

FOR 508: Forest Ecology

3 Credits

The forest ecosystem, variations in space and time, classification, ordination techniques, dynamic aspects such as energy flow and nutrient cycling.

FOR 517: Ecology of Plant Roots

2 Credits

This course covers the form and function of roots from an ecological perspective. Emphasis is placed on identifying and interpreting the diversity of root strategies used by plants to meet the essential functions of water and nutrient acquisition, transport, storage and structural support under various environmental conditions. Additional topics include how root systems may modify ecosystem processes associated with carbon, mineral nutrient and water cycles. Specialized topics include cost/benefit analysis, root evolution, root architecture, root herbivory-defense, mycorrhizas, root respiration, root longevity, resource competition and interference and weathering and soil formation. Both wild and crop plants are discussed.

FOR 521: Advanced Silviculture

3 Credits

Specific silvicultural practices for the establishment and manipulation of forest stands with respect to recent developments and research needs.

Prerequisite: FOR 421

FOR 530: Conservation Genetics

3 Credits

Discussion of the use of genetic principles and technologies in the conservation and management of biological diversity. FOR 530 Conservation Genetics (3) This course will familiarize students with the roles of population genetics, phylogenetics, molecular genetics and quantitative genetics in conservation biology, and to examine in depth pertinent examples from the literature dealing with current applications of conservation genetics including genetic diversity, genetics at the landscape level, the effects of fragmentation on the genetic structure of species, and the role of modern genetics within ecosystem management. FOR 530 will provide a new and valuable component to the graduate curriculum of students interested in genetics, forestry, wildlife, fisheries, conservation, and endangered species. The current scientific literature will be critically reviewed and discussed in relation to case studies, on a range of topics. Evaluation will be based on participation, class presentations, and written papers. The course is to be offered biennially in the Spring in even numbered years.

Prerequisite: FOR 430

FOR 555: Multispectral Remote Sensing

3 Credits

Computer analysis of data from nonimaging remote sensors as applied to mapping of natural resources and land use.

Prerequisite: three credits of remote sensing

FOR 565: GIS Based Socio-Ecological Landscape Analysis

3 Credits

GIS-based socio-ecological analysis of landscape context for natural resources in relations to present and prospective patterns of land use. FOR 565 GIS Based Socio-Ecological Landscape Analysis (3) This course seeks synthesis to bridge a gap between the contemporary spatially-oriented biophysical analysis of landscape ecology and use of geospatial technologies for analysis of past, present, and prospective human influences operative at landscape scale - both of which use geographic information systems as analytical platforms. Interest is reciprocal - human influences on landscape, and landscape conditioning of human economic development. Instruction takes place in a GIS laboratory facility, and evidence of learning arises from ability to access, manipulate, and display spatial information.

Prerequisite: one course each in intro GIS and statistics

FOR 570: Watershed Stewardship Practicum I

3 Credits

Application of integrated community-based watershed planning for water resources management.

Prerequisite: enrollment in the Graduate Option in Watershed Stewardship

FOR 571: Watershed Stewardship Practicum II

5 Credits

Application of integrated community-based watershed planning for water resources management.

Prerequisite: FOR 570 and enrollment in the Graduate Option in Watershed Stewardship

FOR 590: Colloquium

1-3 Credits/Maximum of 3

Continuing seminars which consist of a series of individual lectures by faculty, students, or outside speakers.

Cross-listed with: SOILS 590, WFS 590

FOR 591A: Seminar in Watershed Stewardship Issues

1 Credits

Exploration of watershed stewardship issues.

Prerequisite: enrollment in the Graduate Option in Watershed Stewardship or by permission of the instructors

FOR 591B: Seminar in Watershed Stewardship Planning

1 Credits

Exploration of watershed stewardship planning processes.

Prerequisite: enrollment in the Graduate Option in Watershed Stewardship or by permission of the instructors

FOR 596: Individual Studies

1-9 Credits/Maximum of 9

Creative projects, including nonthesis research, which are supervised on an individual basis and which fall outside the scope of formal courses.

FOR 597: Special Topics

1-9 Credits/Maximum of 9

Formal courses given on a topical or special interest subject which may be offered infrequently; several different topics may be taught in one year or term.

FOR 600: Thesis Research

1-15 Credits/Maximum of 999

No description.

FOR 601: Ph.D. Dissertation Full-Time

0 Credits/Maximum of 999

No description.

FOR 602: Supervised Experience in College Teaching

1-3 Credits/Maximum of 6

Provides an opportunity for supervised and graded teaching experience in forestry courses.

FOR 610: Thesis Research Off Campus

1-15 Credits/Maximum of 999

No description.

FOR 611: Ph.D. Dissertation Part-Time

0 Credits/Maximum of 999

No description.

FOR 880: Bioenergy Feedstocks

3 Credits

This course comprehensively addresses the characteristics, production, and improvement of plants as feedstocks for conversion to energy.

Prerequisite: A B E884