Iowa Lakeside Laboratory Courses (IALL)

IALL Courses

This is a list of courses with the subject code IALL. For more information, see Iowa Lakeside Laboratory (University College) in the Catalog.

**IALL:3104 Nature Based, Early Childhood Teaching Methods Using "The Project Approach"** 3-4 s.h.
Examination of the value of young children's direct experiences in nature through inquiry-based learning; "The Project Approach" builds on children's natural curiosity and enables them to interact, question, connect, problem solve, communicate, and reflect; students follow steps for implementing a nature-based project within their own classroom setting as they insure the needs of diverse learners are met for both social and academic learning; designed for early childhood teachers.

**IALL:3106 Plant Taxonomy** 2-4 s.h.
Principles of classification and evolution of vascular plants; taxonomic tools and collection techniques; use of keys; emphasis on field and laboratory studies to identify local flowering plants; recognition of major plant families.

**IALL:3109 Ecology and Systematics of Algae** 2,4 s.h.
Ecology, morphological structure, phylogeny, and taxonomy of freshwater algae based on field material collected; emphasis on genus-level identifications, biodiversity, ecology; habitat visits to lakes, fens, streams, rivers; algal ecology.

**IALL:3113 Undergraduate Independent Study** 1-4 s.h.
Requirements: junior or senior standing.

**IALL:3114 Field Mycology** 2 s.h.
Identification and classification of common fungi; techniques for identification, preservation, and culture practiced with members of various fungi groups.

**IALL:3117 Ecology and Systematics of Diatoms** 2,4 s.h.
Field and laboratory study of freshwater diatoms; techniques in collection, preparation, and identification of diatom samples; study of environmental factors affecting growth, distribution, taxonomic characters; project design and execution, including construction of reference and voucher collections; data organization and analysis.

**IALL:3122 Prairie Ecology** 4 s.h.
Basic patterns, underlying physical and biotic causes of regional and local distributions of North American prairie plants and animals; field and laboratory analysis and projects. Requirements: familiarity with basic principles of biology and ecology.

**IALL:3123 Prairie Ecology I** 2 s.h.
Recognition of Iowa prairie plants and understanding the systems in which they exist; emphasis on identification of tallgrass prairie flora by sight recognition, family, genus, species, and common names. Requirements: basic familiarity with biology and ecology.

**IALL:3125 Prairie Ecology II** 2 s.h.
Hands-on learning experiences demonstrating dynamic, human-influenced (anthropogenic) systems which have impacted prairie ecosystems for the past 10,000 years or more; emphasis on identification of tallgrass prairie flora by sight recognition, family, genus, species, and common names. Requirements: general familiarity with biology and ecology.

**IALL:3126 Ornithology** 2-4 s.h.
Biology, ecology, and behavior of birds; emphasis on field studies of local avifauna; group projects with focus on techniques of population analysis and methodology for population studies.
IALL:3131 Ecology 4 s.h.  
Introduction to the principles of ecology at the population, community, ecosystem levels; field studies of local lakes, wetlands, and prairies used to examine factors that control distributions, interactions, and roles of plants and animals in native ecosystems. Requirements: two semesters of introductory biology.

IALL:3141 Environmental Policy 3 s.h.  
Theory and practice of environmental policies, including the study of U.S. federal environmental policies with direct and indirect bearings on water issues; focus on policy history, implementation, and effectiveness; how policies interact with each other, how local stakeholders perceive their pros and cons, and linkages between local implementation efforts and regional and large-scale impacts.

IALL:3162 Restoration Ecology 2 s.h.  
Ecological principles for restoration of native ecosystems; establishment (site preparation, selection of seed mixes, planting techniques) and management (fire, mowing, weed control) of native vegetation; evaluation of restorations; emphasis on prairie restoration and wetland vegetation. Requirements: ecology course.

IALL:3164 Animal Behavior 2 s.h.  
Examination of ecological and evolutionary theories of animal behavior through field studies of animal coloniality, courtship, territoriality, predator defense, habitat selection, foraging, mating systems, and parental care. Requirements: two biology courses.

IALL:3175 Soil Formation and Landscape Relationships 2-4 s.h.  
Relationships between soil formation, geomorphology, environment; soil description, classification, geography, mapping, interpretation for land use.

IALL:3176 Glacial Geomorphology 2,4 s.h.  
Field-based introduction to glacial environments and processes including the origin of sediments, landforms, and landscapes produced in glacial and associated environments; aeolian (wind) processes, river and lacustrine systems, and mechanisms and chronologies of climate change.

IALL:3200 Introduction to Research and Inquiry 1-3 s.h.  
How data transforms to information and ultimately knowledge through scientific investigations; examinations and applications include steps formulating the scientific method using 21st-century data, conditions, and related challenges; deliverables include a thoroughly documented scientific experiment beginning with research questions and hypotheses, recommended methods, and concluding with anticipated results.

IALL:5213 Graduate Independent Study 1-4 s.h.

IALL:5217 Ecology and Systematics of Diatoms 2,4 s.h.