

ECOLOGICAL RESTORATION AND RESOURCE MANAGEMENT (ECORES)

ECORES 1010 Introduction to Ecological Restoration and Resource Management 3 Credits

Characterization of global and regional ecosystems through exploration of associated soils, plant communities, and wildlife. Discussion of major land disturbances and resulting effects on abiotic and biotic components of ecosystems. Principles of ecology, natural and physical sciences, agriculture, engineering, law, and policy will be further explored through restoration case studies. Career opportunities related to ecological restoration and natural resource management will be discussed by faculty and guest speakers from the profession.

Components: Class, Laboratory

ECORES 3010 Current Topics in Ecological Restoration and Resource Management 1-3 Credits

Selected topics in restoration ecology and natural resource management examined in a seminar setting with some field presentations.

Components: Class

Prereqs/Coreqs: P. BIOLOGY 3450 or Ecores 1010 or consent of instructor

ECORES 3020 Restoration Revegetation 3 Credits

Restoration of disturbed lands with focus on replanting native and adapted herbaceous and woody species to rebuild soil health and increase biodiversity. Topics covered include native plant propagation and establishment, revegetation planning, vegetation monitoring, and control of invasive plant species through mechanical, chemical, and cultural methods. Emphasis on the use of prescribed fire in prairie and savanna restoration.

Components: Class, Laboratory

Prereqs/Coreqs: P. BIOLOGY 3450 or Ecores 1010 or consent of instructor

ECORES 3310 Agronomy, Horticulture and Ecological Restoration Seminar 1 Credit

Review of current literature, career exploration, and professional development.

Components: Seminar

Cross Offering: ENVHORT 3310, SCSCI 3310

Prereqs/Coreqs: P. ENVHORT 1240 or SCSCI 1240 or ENVHORT 1320 or SCSCI 1260 or Ecores 1010 or BIOLOGY 1350, junior standing or consent of instructor

ECORES 3410 Wetland Ecology, Restoration and Management 3 Credits

In-depth study of wetland communities, including composition, distribution, function, ecology and hydrology. Wetland delineation, regulation, mitigation and restoration. Techniques to improve restoration success and long-term management. Analysis of hydrology within the context of wetland restoration and management.

Components: Field Studies, Laboratory, Class

Prereqs/Coreqs: P. SCSCI 2230 or consent of instructor

ECORES 3750 Ecological Restoration and Resource Management Internship 3-6 Credits

Supervised experiential learning opportunities in collaboration with businesses and public agencies related to ecological restoration and natural resource management.

Components: Field Studies

Prereqs/Coreqs: P. 45 credits in progress or completed and approval of internship coordinator

ECORES 3880 Environmental Law 3 Credits

A study of historical concepts and common law rules and their effect on the development of environmental law; examination of state and federal statutes, regulations and case law relating to land use, pollution control and preservation of natural resources; exploration of the legal frontiers of environmental protection and restoration.

Components: Class

Prereqs/Coreqs: C: four credits of lab science and junior standing

ECORES 3900 Ecological Restoration and Resource Management Field Trip 3 Credits

A field trip of approximately two-week duration taken during summer or spring interim to major ecological restoration and land reclamation projects and research centers. The trip is run in successive years to different regions of the United States. The role of local, state, and federal governments and private industry in restoration and reclamation is studied through numerous site visits. The keeping of a photographic log and journal is required.

Components: Field Studies

Prereqs/Coreqs: P. sophomore standing or consent of instructor

ECORES 4920 Independent Study 1-3 Credits

Independent research project with a written report or paper required. Done under supervision of a faculty member.

Components: Independent Study

ECORES 4940 Project Management in Reclamation and Restoration 3 Credits

Project management concepts are applied to environmental and conservation-related issues and activities. Concepts include definitions, role of project manager, project life cycle, project control cycles, project management tools, project team and organizational factors, and plan implementation. Leadership, team building and communication skills are emphasized through service learning projects, written reports, and presentations.

Components: Class

Prereqs/Coreqs: P. Junior standing or consent of instructor