ENVIRONMENTAL SCIENCE (ENVS)

ENVS 6470 Environmental Remediation and Restoration
3 credit hours
Current approaches to remediating damaged ecosystems, including such topics as mine reclamation, invasive species control, ecological restoration and constructed ecosystems are examined. Emphasis is placed on the scientific and socioeconomic bases for remediation and restoration, including the following: theoretical approaches, the role of traditional ecological knowledge; gaps between theory and practice; and hands-on training in local ecological restoration projects.

ENVS 6487 Environmental Contaminants
3 credit hours
The focus of this course is on key environmental contaminants, including mercury, other metals, and selected volatile organic compounds. Emphasis is placed on experiential approaches, including field work and laboratory research, to study these environmental contaminants, Students are expected to participate in the critical analyses of literature, and in the discussion and presentation of their own research results.

ENVS 6620 Restoration Ecology
3 credit hours
This course offers an advanced treatment of contemporary issues in restoration ecology, including conservation genetics, invasive species, phytoremediation, restoration ethics, and ecological integrity. Experiential learning is emphasized and there may be opportunities for hands-on experience in actual restoration projects or in experimental microcosms. Students will also develop scientific writing skills by writing real grant proposals or review papers.

ENVS 6650 Natural Resource Management
3 credit hours
This interdisciplinary course examines the management of natural resource industries such as fisheries, forestry, mining and energy, focusing on interactions between biophysical, ecological, socioeconomic, and technological components. The course will cover such topics as sustainable development and environment-economy interactions in the resource sector; approaches to integrated natural resource development; theoretical and practical aspects of managing resources and resource industries; economics of sustainable resource use; methods for analyzing the impacts of resource use.

ENVS 6660 Environmental Pattern Analysis
3 credit hours
Students focus on theory and practical methods for characterizing the structural and dynamic features relating to environmental systems. Practical applications include environmental systems related to rivers, lakes, coastal areas, fisheries, forests, ecosystems, underground mineral distribution, atmospheric variables (wind, temperature), and pollution. Classes 3 hrs. and lab 3 hrs. per week.

ENVS 6690 - 6699 Directed Studies in Environmental Science
Students will pursue a short term research project in such areas as: oceanographic sampling and analysis, policy development or environmental impact assessment. Students must identify an appropriate supervisor; provide a project proposal; and at the end of the project, submit a written report.

ENVS 6800 – 6825 Special Topics in Environmental Science
6 credit hours
Course content varies from year to year.

ENVS 6826 – 6849 Special Topics in Environmental Science
3 credit hours
Course content varies from year to year.