ENVIRONMENTAL AND RESOURCE ECONOMICS (EREC)

The Environmental and Resource Economics program offers training in areas that include public resource policy, resource management, natural resource and environmental economics, and community economics and finance. The curriculum emphasizes applied economics in the context of public policy. Training is also available in agricultural economics, including agribusiness, small business management, food marketing, agricultural policy, and world food supplies.

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Programs

- Environmental and Resource Economics Major (B.S.)
- Environmental and Resource Economics Minor

Courses

Environmental & Resource Economics (EREC)

EREC 411 - Environmental and Resource Economics Perspectives
Credits: 4
Microeconomic theory and analysis in resource management and use decisions. Survey of significant resource problems from an economic perspective and the application of economic analysis.
Attributes: Social Science (Discovery)
Mutual Exclusion: No credit for students who have taken ECN 412, ECON 412W, ECON 402, ECON 402A, ECON 402H.

EREC 444 - The New Pirates of the Caribbean
Credits: 4
Inquiry into many facets of tourism from the standpoint of tourists and tour destination. Economic and institutional factors affecting human well-being from the use of land and water resources; discussions of distributional aspects of benefits from tourism activities; environmental impacts; ownership patterns and uses; cultural attributes; and local economies in small Caribbean island nations. Cruise ships, time-shares, all-inclusive resorts, hurricanes, casinos, bars, rum, sex, and drugs are investigated through extensive readings and web surfing.
Attributes: World Cultures(Discovery); Inquiry (Discovery); Writing Intensive Course

EREC 525 - Statistical Methods and Applications
Credits: 4
Applications of elementary statistical concepts and methods including probability, descriptive techniques, statistical inference and bivariate and multivariate statistical analysis. Orientation is toward analysis and interpretation of data commonly encountered in social science disciplines.
Attributes: Quantitative Reasoning(Disc)
Mutual Exclusion: No credit for students who have taken ADM 430, ADMN 420, BIOL 528, HHS 540, MATH 439, MATH 539, MATH 644, PSYC 402, PSYC 402H, SOC 402, SOC 402H, SOC 502, SOC 502H.

EREC 535 - Being a Locavore
Credits: 4
Explores the growth of the Locavore movement in the United States, starting with the evolution of the mainstream agricultural system. Topics such as the Agricultural Adjustment Act, farm subsidies, the development of mono-culture large scale farms, as well as the Magnuson-Stevens Act and the current state of fisheries. Ethical, economic, and social phenomenon will be discussed, followed by nutrition, and environmental impacts. Students will keep a food journal, which will be used as a basis to source, budget, and plan for years of eating local food. The class concludes with an investigation into the growing trend of local farmers’ markets, CSAs, and on farm sales. How and why more and more people are going local and perhaps becoming “Locavores”.
Attributes: Social Science (Discovery)

EREC 572 - Introduction to Natural Resource Economics
Credits: 4
Introduces theory, methods of analysis, and current literature of natural resource economics and policy. Topics include multiple use, taxation, optimal harvest scheduling, market failure, property rights, public goods, benefit-cost analysis, amenity values, non-market resource services and natural resource policy. Topics applied to forests and forestry, wildlife management, outdoor recreation, public lands, agriculture, fisheries, water, energy and mining/nonrenewable resources.

EREC 595 - Problems in Natural and Agricultural Resources
Credits: 2-4
Students pursue field, laboratory, or library problems in natural and environmental resources that are not covered by other courses. Faculty consultant and study topic must be chosen before registration. In consultation with the faculty adviser, students select the problem area, create a bibliography for reflection, and pursue the topic. A professionally written paper is expected at termination of the study. May be repeated once for credit. Prereq: permission.
Repeat Rule: May be repeated up to 1 time.
Equivalent(s): EREC 595W, RECO 595

EREC 595W - Problems in Natural and Agricultural Resources
Credits: 2-4
Students pursue field, laboratory, or library problems in natural and environmental resources that are not covered by other courses. Faculty consultant and study topic must be chosen before registration. In consultation with the faculty adviser, students select the problem area, create a bibliography for reflection, and pursue the topic. A professionally written paper is expected at termination of the study. May be repeated once for credit. Prereq: permission. Writing intensive.
Attributes: Writing Intensive Course
Repeat Rule: May be repeated up to 1 time.
Equivalent(s): EREC 595, RECO 595

EREC 596 - Problems in Natural and Agricultural Resources
Credits: 2-4
Students pursue field, laboratory, or library problems in natural and environmental resources that are not covered by other courses. Faculty consultant and study topic must be chosen before registration. In consultation with the faculty adviser, students select the problem area, create a bibliography for reflection, and pursue the topic. A professionally written paper is expected at termination of the study. May be repeated once for credit. Prereq: permission.
Repeat Rule: May be repeated up to 1 time.
Equivalent(s): EREC 596W, RECO 596
EREC 596W - Problems in Natural and Agricultural Resources
Credits: 2-4
Students pursue field, laboratory, or library problems in natural and environmental resources that are not covered by other courses. Faculty consultant and study topic must be chosen before registration. In consultation with the faculty adviser, students select the problem area, create a bibliography for reflection, and pursue the topic. A professionally written paper is expected at termination of the study. May be repeated once for credit. Prereq: permission. Writing intensive.
Attributes: Writing Intensive Course
Repeat Rule: May be repeated up to 1 time.
Equivalent(s): EREC 596, RECO 596

EREC 600 - Field Experience
Credits: 1-4
A supervised experience providing the opportunity to apply academic experience in settings associated with future professional employment and/or related graduate opportunities. Must be approved by a faculty advisor selected by the student. Prereq: permission. Cr/F.
Repeat Rule: May be repeated for a maximum of 8 credits.
Equivalent(s): EREC 600 W, RECO 600

EREC 601 - Agribusiness Economics and Management
Credits: 4
Applications of economic and management principles in production, marketing, finance, and other operational decisions facing small agribusiness firms. Prereq: EREC 411 or ECON 402 or equivalent.

EREC 606 - Land Economics Perspectives: Uses, Policies, and Taxes
Credits: 4
Economic and institutional perspectives affecting human use of land resources; discussion of land ownership patterns and uses; land rent, location, and resource use; institutional constraints; partial ownership policies; and local planning for more efficient use of land. Real estate markets, transfers, valuation, and taxation. Prereq: EREC 411 or equivalent or permission.
Equivalent(s): RECO 606

EREC #608 - Environmental Economics for Non-Economists
Credits: 4
This course will examine different aspects of natural resource allocation and protection of environmental quality from an economic standpoint. The course will examine the economic factors which lead to environmental problems such as air and water pollution, the common property problem, and other areas where existing markets do a less than satisfactory job of resource allocation. Economic incentives for alleviating these environmental problems will also be surveyed. Specific topics covered will include benefit cost analysis, valuation of "nonmarket" goods, policy tools which have economic bases, and sustainable development. Where possible, guest lecturers from other disciplines and selected films will be used to present alternative viewpoints and stimulate discussion. Class participation is encouraged and expected. Students completing this course will gain an overview of key issues in environmental economics, and how economics can be used as an aid in policy decisions regarding natural resources. Prereq: EREC 411, ECON 401 or their equivalents or permission. Does not count toward major requirements for EREC electives.
Equivalent(s): CD 627, RECO 627

EREC 627 - Community Economics
Credits: 4
Economic factors affecting community and local government decisions. Emphasizes use of economic theory for decision making and community problem solving. Prereq: EREC 411 or equivalent.
Equivalent(s): CD 627, RECO 627

EREC 666 - Ecological-Economic Modeling for Decision Making
Credits: 4
In this course, students will develop ecological-economic models and use them to inform economic decision making related to the management of natural resources. These models range from analytical models using algebra and calculus, to computational models using coding and simulations. The course will focus on spatial-dynamic computational bio-economic models because of their ability to capture economic decision making and ecological processes over time and space. Prereq: ECON 605 or equivalent; MATH 420, or equivalent.

EREC 680 - Agricultural and Food Policy
Credits: 4
Analysis of issues that led to government involvement in the agricultural and food sector. Application of economic concepts and tools to the evaluation of public policies affecting agriculture and food. Prereq: EREC 411 or equivalent.
Equivalent(s): EREC 704

EREC 708 - Environmental Economics
Credits: 4
Environmental pollution, the market economy, and optimal resource allocation; alternative control procedures; levels of environmental protection and public policy; property right issues. Prereq: ECON 605 or equivalent.
Attributes: Writing Intensive Course
Equivalent(s): RECO 708

EREC 710 - Seminar
Credits: 2-4
Equivalent(s): RECO 710

EREC #711 - Marine Resource Economics
Credits: 4
Economic overview of the marine environment; interactions/conflicts surrounding this multiple-use resource. Economics of fisheries; marine recreation; aquaculture; endangered species; non-market ecosystem services. Prereq: EREC 411, ECON 401 or ECON 402 or equivalent or permission. (Offered every other semester.)
Equivalent(s): EREC 611

EREC 756 - Rural and Regional Economic Development
Credits: 4
Attributes: Writing Intensive Course
Equivalent(s): RECO 756

EREC 760 - Ecological-Economic Modeling for Decision Making
Credits: 4
In this course, students will develop ecological-economic models and use them to inform economic decision making related to the management of natural resources. These models range from analytical models using algebra and calculus, to computational models using coding and simulations. The course will focus on spatial-dynamic computational bio-economic models because of their ability to capture economic decision making and ecological processes over time and space. Prereq: ECON 605 or equivalent; MATH 420, or equivalent.

EREC 775 - Research Methods
Credits: 4
Study of the process, methods, and techniques of conducting scientific research in the social sciences. Includes problem identification, data collection and management, qualitative quantitative data analyses, and communicating scientific research. Prereq: EREC 411 or equivalent; EREC 525 or equivalent; junior/senior standing.
Equivalent(s): EREC 666
EREC 795 - Investigations
Credits: 2-4
Special assignments in readings, investigations, or field problems. Topics may include agricultural marketing, agricultural production and farm management, community development, economics of human resources, economics of population and food, land economics, marine economics, rural economic development, regional economics, water economics, or teaching experience. Prereq: permission. May be repeated.
Equivalent(s): EREC 795W, RECO 795

EREC 795W - Investigations
Credits: 2-4
Special assignments in readings, investigations, or field problems. Topics may include agricultural marketing, agricultural production and farm management, community development, economics of human resources, economics of population and food, land economics, marine economics, rural economic development, regional economics, water economics, or teaching experience. Prereq: permission. May be repeated. Writing intensive.
Attributes: Writing Intensive Course
Equivalent(s): EREC 795, RECO 795

EREC 799 - Honors Senior Thesis
Credits: 1-4
Honor thesis students conduct an independent research project, relevant to the student's area of specialization in the major, under the direction of a faculty sponsor. Students submit a research proposal, write a final report, and provide an oral presentation. One or two semester sequence. Restricted to Senior/Natural Resource Majors. Permission required.
Attributes: Writing Intensive Course
Repeat Rule: May be repeated for a maximum of 8 credits.
Equivalent(s): RECO 799

Faculty

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