

## RESOURCE DEVELOPMENT

RD

### Department of Community Agriculture, Recreation and Resource Studies College of Agriculture and Natural Resources

- 211 Introduction to Gender and Environmental Issues**  
Spring. 3(3-0) Interdepartmental with Environmental Economics and Policy and Forestry and Fisheries and Wildlife and Women's Studies. Administered by Fisheries and Wildlife. R: Not open to freshmen. SA: PRM 211  
The concept of gender. Overview of environment and habitat. Historical gender roles in environmental management. Gender-based theoretical perspectives. Case studies on developing and developed countries. Environmental management with emphasis on fisheries, wildlife and wetlands. Women environmental professionals.
- 442 Concepts of Biological Information Systems**  
Spring. 3(3-0) Interdepartmental with Entomology. Administered by Entomology. R: Open only to seniors or graduate students. Systems approach to managing biological information using computer technology.
- 446 Environmental Issues and Public Policy**  
Fall, Spring. 3(3-0) Interdepartmental with Zoology. Administered by Zoology. R: Not open to freshmen or sophomores.  
Interrelationship of science and public policy in resolving environmental issues. Technical, social, economic, and legal influences. Case study approach.
- 466 Natural Resource Policy**  
Spring. 3(3-0) Interdepartmental with Forestry and Fisheries and Wildlife and Park, Recreation and Tourism Resources. Administered by Forestry. R: Not open to freshmen or sophomores.  
Natural resources policy-making in the context of scientific, environmental, social, and legal-institutional factors. Historical evolution of policies and case studies of contemporary policy issues.
- 801 Foundations of Resource Development**  
Fall. 3(3-0)  
Exploration of the philosophical and ethical considerations central to lifelong critical thinking and learning concerning sustainability and development.
- 802 Foundations of Resource Development II**  
Spring. 3(3-0) P:M: RD 801  
Perspectives, approaches, and issues in resource management. Sustainable development and local food systems.
- 803 Research Processes in Natural Resources**  
Fall. 3(3-0) SA: FOR 803  
Research planning and implementation. Structure of research organizations. Applications of research results.

- 810 Institutional and Behavioral Economics**  
Fall. 3(3-0) Interdepartmental with Agricultural Economics and Economics. Administered by Agricultural Economics.  
Relationships among institutions, individual and collective actions, and economic performance. Public choice, property rights, and behavioral theories of firms and bureaucracies.
- 812 Qualitative Research Techniques for Resource Development**  
Spring. 3(3-0)  
Design of qualitative research projects. Collection and analysis of qualitative data. Informal and semi-structured interviewing, observation, focus groups, free lists and pile sorts. Use of qualitative methods in mixed methods studies.
- 823 Community-Based Natural Resource Management in Developing Countries**  
Spring. 3(3-0) RB: Previous experience or course work related to at least one of the following: developing countries, natural resource management, community development.  
Community-based management of natural resources in developing countries. Roles of property rights, collective action, and the quality of local governance in promoting productivity, conservation, and equitable distribution of benefits.
- 826 International Development and Sustainability**  
Fall. 3(3-0) Interdepartmental with Anthropology and Forestry and Political Science and Social Science. Administered by Resource Development.  
Environmental, economic, political, legal, management, and cultural components of sustainable development.
- 836 Law of Environmental Regulation**  
Fall. 3(3-0) RB: (RD 415) or approval of department.  
Administrative law. National Environmental Policy Act. Air and water pollution. Toxic substances. Case studies.
- 852 Systems Modeling and Simulation**  
Fall of even years. 3(3-0) Interdepartmental with Biosystems Engineering and Forestry and Fisheries and Wildlife. Administered by Fisheries and Wildlife. RB: STT 422 or STT 442 or STT 464 or GEO 463  
General systems theory and concepts. Modeling and simulation methods. Applications of systems approach and techniques to natural resource management, and to ecological and agricultural research.
- 853 Applied Systems Modeling and Simulation for Natural Resource Management**  
Spring of odd years. 3(2-2) Interdepartmental with Biosystems Engineering and Forestry and Fisheries and Wildlife and Zoology. Administered by Fisheries and Wildlife. RB: (FW 820 or BE 486 or ZOL 851) or or approval of department. R: Open only to seniors and graduate students  
Mathematical models for evaluating resource management strategies. Stochastic and deterministic simulation for optimization. System control structures. Team modelling approach.

- 859 Gender, Justice, and Environmental Change: Methods and Application**  
Spring of even years. 3(3-0) Interdepartmental with Anthropology and Forestry and Fisheries and Wildlife and Geography and Sociology. Administered by Anthropology. RB: Background in social science, environmental science, or natural resources.  
Methods and case studies related to gender, ecology, and environmental studies. Methodological and fieldwork issues from a feminist perspective in international and intercultural contexts. Qualitative and quantitative methods for integrating social and environmental data.
- 866 Economics of Renewable Resources**  
Spring of odd years. 3(2-2) Interdepartmental with Forestry. Administered by Forestry. RB: AEC 829 or EC 803 or EC 805  
Applications of economic theory and analysis to renewable natural resources problems. Focus on renewable resource interactions, including multiple-use forestry and agroforestry.
- 869 Community and Conservation**  
Fall of even years, Summer of even years. 3 credits. Interdepartmental with Fisheries and Wildlife and Sociology. Administered by Sociology. RB: Social Science methods, social science theory and environmental coursework.  
Use of experiential, participatory, field-based mode of inquiry to develop understanding of social and cultural issues associated with conservation. Understanding of different social positions and perspectives.
- 870 Community Resource Development**  
Fall. 3(3-0)  
Concepts, models, and strategies. Design and implementation of change in community settings.
- 874 Management of Nonprofit Organizations**  
Fall. 3(3-0)  
Managing nonprofit organizations. Role of nonprofit organizations in the economy. Legal requirements for operation. Managing volunteers. Roles and functions of boards. Fund raising and marketing. Human resource strategies.
- 876 International Rural Community Development**  
Fall, Spring, Summer. 3(3-0)  
Rural community resource development in Africa, Asia, Europe, and the Americas. Theories of development, learning, participation, and program development. Evaluation strategies. Case studies.
- 881 Building and Implementing Watershed Management Plans**  
Fall, Spring, Summer. 3(3-0) Interdepartmental with Forestry and Fisheries and Wildlife. Administered by Resource Development. RB: RD 324 and ZOL 355 and RD 452 Not open to students with credit in RD 824.  
Problem definition. Data collection. Public consultation. Program evaluation. Case studies include watershed planning in the Great Lakes region.
- 882 Watershed Assessments and Tools**  
Fall, Spring, Summer. 3(3-0) Interdepartmental with Forestry and Fisheries and Wildlife. Administered by Resource Development. RB: RD 452 and RD 881  
Techniques for assessing and predicting physical, chemical, biological, and socioeconomic conditions within a watershed. Water quality monitoring. Bio-assessment protocols. Pollutant loading models.

## Resource Development—RD

### 890 Independent Study

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course. R: Approval of department.

Individual study of selected topics under faculty supervision.

### 891 Selected Topics

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course.

Selected topics on current innovations or emerging issues in resource development.

### 898 Master's Research

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. R: Open only to master's students in the Resource Development major.

Plan B research paper.

### 899 Master's Thesis Research

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Open only to master's students in the Resource Development major.

Master's thesis research.

### 923 Advanced Environmental and Resource Economics

Fall. 3(3-0) Interdepartmental with Agricultural Economics and Economics and Forestry and Park, Recreation and Tourism Resources. Administered by Agricultural Economics. RB: AEC 829 and EC 812A

Advanced economic theory of environmental management and policy. Treatment of externalities and market and non-market approaches to environmental improvement. Topics in conservation and sustainable economic growth. Applications to research and policy.

### 925 Advanced Natural Resource Economics

Spring. 3(3-0) Interdepartmental with Agricultural Economics and Economics and Forestry and Park, Recreation and Tourism Resources. Administered by Agricultural Economics. RB: EC 812A and AEC 829 and FOR 866 SA: AEC 991H

Economic theory of managing nonrenewable and renewable resources, including optimal use, the incentives for use under decentralized markets, and public policy design. Analysis of the co-evolution of economic and ecological systems.

### 999 Doctoral Dissertation Research

Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Open only to doctoral students in the Resource Development major.

Doctoral dissertation research.