RNR 1001 - Natural Resource Conservation (3)

This is a General Education course. An honors course, RNR 1070, is also available. Credit will not be given for this course and RNR 1070. Relationship of humans to the natural environment; ecology and conservation of soil, water, forest, range, wildlife and fisheries resources.

RNR 1002 - Issues in Natural Resource Management (1)

Prerequisite (for RNR majors only): credit or registration in RNR 1010 or RNR 1071.
Discussions of the ecological, economic, sociocultural and political factors that affect human relationships with the natural environment and the exploitation and conservation of water, forest, range, wildlife, wetland and fisheries resources.

RNR 1004 - Conservation of Forest Resources (2)

Resources of forest and range land, including wood, wildlife, recreation forage and water; techniques of multiple-use management of forest lands.

RNR 1010 - Introduction to Natural Resource Ecology and Management (4)

An Honors Course, RNR 1071, is also available. Credit will not be given for this course and RNR 1001 or RNR 1071. Prerequisite: Majors only or permission of instructor. 3 hrs. lecture, 1 hr. discussion. Ecology, management, and conservation of forest, fish, wetland, and wildlife species and their habitats; introduction to the ecology and taxonomy of commercially, socio-culturally, recreationally, and ecologically important terrestrial and aquatic organisms.

RNR 1071 HONORS - Introduction to Natural Resource Ecology and Management (4)

Same as RNR 1010, with special honors emphasis for qualified students. Credit will not be given for this course and RNR 1010. Prerequisite: Admission to the Honors College and credit or registration in BIOL 1207. 3 hrs. lecture, 1 hr discussion. Ecology, management, and conservation of forest, fish, wetland, and wildlife species and their habitats; introduction to the ecology and taxonomy of commercially, socio-culturally, recreationally, and ecologically important terrestrial and aquatic organisms.

RNR 2001 - Trees and Woody Plants of the Southeast (2)

Students are responsible for paying for travel expenses associated with this course. 1 hr. lecture; 3 hrs. lab. Principal trees of the southeastern U.S.; their identification, classification, nomenclature and distribution. Emphasis on southern timber species; common shrubs, ornamentals, woody vines and some herbaceous plants will also be covered.

RNR 2002 - Introduction to Fisheries and Aquaculture (3)

Students are responsible for paying for travel expenses associated with this course. 2 hrs. lecture; 3 hrs. lab. History and scope of fisheries and aquaculture; production and harvest of economically important aquatic vertebrates and invertebrates; role of fisheries and aquaculture professionals in society.
RNR 2003 - Trees & Woody Plants of the Eastern and Western United States (1)
Prerequisite: RNR 2001 or consent of instructor. Students are responsible for paying for travel expenses associated with this course. 3 hr. lab. Important trees of the eastern and western U.S.; their identification, distribution and value. Emphasis on important timber species and a limited number of common woody shrubs.

RNR 2031 - Principles of Wildlife Management (3)
An honors course, RNR 2072, is Also offered. Prerequisite: RNR 2101 or RNR 2070 or concurrent enrollment. Credit will not be given for this course and RNR 2072. Wildlife conservation and management; ecology and management of wildlife in relation to the objectives of consumptive and nonconsumptive interest groups.

RNR 2039 Introduction to Renewable Natural Resource Policy (3)
An honors course, RNR 2071, is also offered. Credit will not be given for this course and RNR 2071. Development and implementation of policies in renewable natural resources; current environmental issues.

RNR 2043 Wood Science and Forest Products (3)
2 hrs. lecture; 3 hrs. lab. Structural components of wood and identifying characteristics; basic physical properties; manufacture and uses of forest products.

RNR 2061 Problems in Natural Resource Management (1-4)
Prerequisite: permission of instructor. May be taken for a max. of 4 sem. hrs. of credit. Topics covered vary with the needs of the student and availability of faculty.

RNR 2070 HONORS: Ecology of Renewable Natural Resources (4)
Same as RNR 2101, with special honors emphasis for qualified students. Prerequisite: BIOL 1503 and RNR 1070. Credit will not be given for this course and RNR 2101. Ecological principles and population dynamics; emphasis on interactions between populations in communities, ecosystems and landscapes.

RNR 2071 HONORS: Introduction to Renewable Natural Resources Policy (4)
Same as RNR 2039, with special honors emphasis for qualified students. Prerequisite: credit or enrollment in RNR 2070 or permission of instructor. Credit will not be given for this course and RNR 2039. Development and implementation of policies in renewable natural resources; current environmental issues.

RNR 2072 HONORS: Principles of Wildlife Management (4)
Same as RNR 2031, with special honors emphasis for qualified students. Prerequisite: RNR 2071 or permission of instructor. Credit will not be given for this course and RNR 2031. Population management, habitat management and policy associated with wildlife management. Sustainability of hunting and of endangered wildlife species. Indirect effects of toxins, eutrophication, human infrastructure and climate change on wildlife habitat and wildlife populations.
RNR 2101 Ecology of Renewable Natural Resources (3)
An honors course, RNR 2070, is also available. Prerequisite: BIOL 1202, BIOL 1209, RNR 1001 or RNR 1070, RNR 1002. Credit will not be given for this course and RNR 2070. General ecological principles tied to the conservation and management of plant and animal populations; emphasis on how populations interact in communities and ecosystems.

RNR 2102 Natural Resource Measurements and GIS (3)
Students are responsible for paying for travel expenses associated with this course. 2 hrs. lecture; 3 hrs. lab. Introduction to sampling techniques in measuring renewable natural resources, such as trees, wood products, forest stands, wildlife and fisheries populations and water quality. Introduction to use of global information systems (GIS) and global positioning systems (GPS) applications in natural resource management.

RNR 3002 Silviculture (2)
Prerequisite: RNR 2101. Basic knowledge of personal computers and e-mail is assumed. A generalized approach to forest stand establishment and culture based on the ecological principles of regeneration and the identification of stand conditions that will satisfy specific goals and objectives for the forest.

RNR 3004 Photogrammetry, GPS and GIS (3)
Prerequisite: permission of department. Students are responsible for paying for travel expenses associated with this course. 2 hrs. lecture, 3 hrs. lab. Principles, interpretation and use of aerial photos, Global Positioning Systems (GPS) and Geographic Information Systems (GIS) in stand measurements and forest management applications.

RNR 3005 Field Studies in Wildlife Habitat and Management (2)
Intersession only. Prerequisite: RNR 2001. Class meets 8 hrs. per day for 2 weeks at off-campus sites. Students are responsible for paying for travel expenses associated with this course. Identification of woody and herbaceous plants important to wildlife species and techniques used to manage and quantify wildlife habitat; emphasis on collecting field data and plant identification in field setting to assess habitat quality and management options for wildlife.

RNR 3018 Ecology and Management of Southeastern Wildlife (4)
Prerequisite: RNR 2031 or RNR 2072. Students are responsible for paying for travel expenses associated with this course. 2 hrs. lecture; 6 hrs. lab. Habitat selection, food habits and reproductive biology of selected species of amphibians, reptiles, birds, mammals and fishes; emphasis on the diversity of niche exploitation strategies among these groups.

RNR 3034 Field Studies in Dendrology (1)
Prerequisite: RNR 2001. One week of field practice. Students are responsible for paying for travel expenses associated with this course. Review of species studied in RNR 2001; 60 to 70 more species of trees, shrubs and woody vines indigenous to the southeastern U.S. studied; herbarium collection required.
RNR 3036 Field Studies in Mensuration (2)
Prerequisite: RNR 3103. Two weeks of field practice. Students are responsible for paying for travel expenses associated with this course. Exercises in designing and conducting timber and multipurpose cruises; boundary location and other types of land surveying associated with forest resource management.

RNR 3037 Field Studies in Silviculture (1)
Prerequisite: RNR 2001, RNR 3002 and RNR 3103. One week of field practice. Students are responsible for paying for travel expenses associated with this course. Field tours of a range of forestry practices and field experiences in various silviculture practices.

RNR 3038 Field Studies in Timber Harvesting (1)
Prerequisite: RNR 3002 and RNR 3103. One week of field practice. Students are responsible for paying for travel expenses associated with this course. On-site studies of harvesting systems used in southern forestry; participation in timber harvesting; exercises in time and production.

RNR 3039 Field Studies in Wood Utilization (1)
Prerequisite: RNR 2043, RNR 3002 and RNR 3103. One week of field practice. Students are responsible for paying for travel expenses associated with this course. On-site studies of wood manufacturing facilities; exercises in product/raw material relationships.

RNR 3040 Silvicultural Prescriptions (1)
Prerequisite: RNR 3002 and RNR 3103. One week of field practice. Students are responsible for paying for travel expenses associated with this course. Practical development of silvicultural prescriptions incorporating elementary economic analysis and silvicultural principles.

RNR 3041 Forest Practicum (1-4)
May be taken for a max. of 4 sem. hrs. of credit. 1-4 weeks practicum. Students are responsible for paying for travel expenses associated with this course. Field exposure to various aspects of forestry practices; intended for off-campus field, lab, workshop or other intensive training in the field of forestry.

RNR 3044 Renewable Natural Resources Field Studies (1)
Prerequisite: RNR 3002, RNR 3103. One-week field trip. Students are responsible for paying for travel expenses associated with this course. Insight into management objectives and issues in forested ecosystems not found in the West Gulf Coastal Plain; experience gained through on-site tours and discussions with various natural resource professionals.

RNR 3103 Forest Biometrics (2)
Prerequisite: RNR 2102, EXST 2201 and MATH 1431. Principles in measuring trees, stands, wood products and other forest resources; sampling and inventory techniques; statistical inference.
RNR 3105 Forest Biology (2)
Prerequisite: RNR 2101 or RNR 2070. This is an 8-week course. The general university drop/add dates do not apply. The instructor will provide students with the drop/add dates established by the Office of the University Registrar. Topics include: tree anatomy, tree growth, tree physiology, forest genetics and ecological principles specific to the understanding of forest ecosystems and sustainable management of forests.

RNR 3106 Timber Harvesting (2)
Students are responsible for paying for travel expenses associated with this course. This is an 8-week course, the general university drop/add dates do not apply. The instructor will provide students with the drop/add dates established by the Office of the University Registrar. 1 hr. lecture; 3 hrs. lab. Methods of harvesting timber crops; logging equipment, planning, road layout, legal and social issues, environmental concerns, financial analysis of logging operations and contracts; field trips and practical exercises included.

RNR 3107 Wood Procurement (2)
Students are responsible for paying for travel expenses associated with this course. This is an 8-week course. The general university drop/add dates do not apply. The instructor will provide students with the drop/add dates established by the Office of the University Registrar. 1 hr. lecture; 3 hrs. lab. Methods of purchasing and marketing timber crops; practicum of timber and pulpwood purchasing systems; value assessments, wood specifications, human relations, negotiations, ethics, competitive bidding; legal and social issues; contracts; records; wood storage; and global aspects; field trips and practical exercises included.

RNR 3108 Case Studies in Habitat Restoration (2)
Prerequisite: RNR 2101 or RNR 2070; 2 weekend field trips. Students are responsible for paying for travel expenses associated with this course. 1 hr. lecture, 3 hrs. lab Principles related to the context, planning, design and implementation of habitat restoration and mitigation; evaluation of habitat restoration efforts using the case study method.

RNR 3913 Quantitative Methods in Wildlife and Fisheries (4)
Prerequisite RNR 1010, RNR 2101, “C” or better in RNR 2102, EXST 2201 and junior or senior status. 3 hrs. lecture; 3 hrs. lab. Specialized, modern quantitative methods necessary for entry-level and early career positions in wildlife and fisheries research and management. Computer-based data analysis of GIS, remotely-sensed, and field collected experimental and observational data, including life tables, mark-recapture, matrix population expansion, and distance and detection based abundance estimation.

RNR 4001 Silviculture Lab (1)
Prerequisite: credit or registration in RNR 3002. Students are responsible for paying for travel expenses associated with this course. Working knowledge of a word processor, spreadsheet and email is assumed. 3 hrs. lab. Basic office and field techniques for assessing forest structure and controlling stand development.
RNR 4011 Wildlife Management Techniques (4)
**Prerequisite:** RNR 2031 or RNR 2072 and EXST 2201; RNR 3018. Weekend field trips. Students are responsible for paying for travel expenses associated with this course. 3 hrs. lecture; 3 hrs. lab. Wildlife science and the scientific method, generating and testing hypotheses and predictions, statistical analysis of class generated data and scientific writing. Population inventories and analysis; harvest management; methods to capture animals and determine age and sex. Immobilization methods, marking methods, radio telemetry and assessment of nutrition and condition. Use of GPS and GIS in wildlife ecology.

RNR 4012 Waterfowl Biology and Conservation (4)
**Prerequisite:** RNR 2031 or RNR 2072 and RNR 3018. Weekend field trips. Students are responsible for paying travel expenses associated with this course. Credit will not be given for this course and RNR 7012. 3 hrs. lecture; 3 hrs. lab. Ecology, conservation, and management of North American waterfowl; overview of life history theory and behavioral ecology of waterfowl; methods of population monitoring and management, habitat management, and human dimensions of waterfowl conservation.

RNR 4013 Ecology and Management of Wetland Wildlife (4)
Students are responsible for paying for travel expenses associated with this course. 3 hrs. lecture; 3 hrs. lab. History and value of wetlands, waterfowl, fur animals, alligators, wetland habitat management.

RNR 4016 Upland Game Bird Biology (4)
**Prerequisite** RNR 3018. Students are responsible for paying for travel expenses associated with this course. Not for graduate credit. 3 hrs. lecture; 3 hrs. lab. Biology, ecology, conservation, and management of selected upland birds found in North America.

RNR 4020 Taxonomy and Ecology of Wetland Plants (4)
Also offered as BIOL 4020. **Prerequisite:** BIOL 1202 and BIOL 1209. 3 hrs. lecture; 3 hrs. lab; extended field trips. Field service fee. Taxonomy, ecology, distribution and economic significance of wetland plants in Louisiana.

RNR 4022 Principles of Aquaculture (4)
**Prerequisite:** 8 sem. hrs. of introductory chemistry and 8 sem. hrs. of introductory zoology and/or biology; or equivalent. Students are responsible for paying for travel expenses associated with this course. 3 hrs. lecture; 3 hrs. lab with occasional extended field trips. Principles underlying aquaculture of fish, crustaceans and mollusks.

RNR 4023 Marine Fisheries Resources (3)
Survey of the biology, harvest and management of commercially important marine organisms throughout the world; emphasis on stock trends and the effects of biological and socio-economic factors on development of management programs.

RNR 4025 Limnology (3)
**Prerequisite:** BIOL 1201, BIOL 1208 and CHEM 1201, CHEM 1202, CHEM 1212 or equivalent. Geomorphology, physiochemistry, biology and ecology of inland waters.
RNR 4032 Forest Fire Protection and Use (2)
Students are responsible for paying for travel expenses associated with this course. 8-week course. The general university drop/add dates do not apply. The instructor will provide students with drop/add dates established by the Office of the University Registrar. 1 hr. lecture; 3 hrs. lab. Forest fire control and use; emphasis on southern forests.

RNR 4033 Silviculture and Management of Hardwoods (4)
Prerequisite: RNR 3002 or consent of instructor. Students are responsible for paying for travel expenses associated with this course. Extended field trips, one weekend field trip. 3 hrs. lecture; 3 hrs. lab. Ecology, silviculture and management of hardwood forest ecosystems; improvement, conservation, and use for forest products, wildlife habitats and other amenities.

RNR 4036 Forest Management (4)
Prerequisite: ECON 2030 or AGEC 2003 or equivalent, RNR 3036, RNR 3037 and RNR 3040. 3 hrs. lecture; 3 hrs. lab. Compounding and discounting; management of a single stand, even-aged and uneven-aged management, decision criteria and decision variables, management of an existing stand; forest taxation and valuation; management of many stands; harvest scheduling.

RNR 4037 Biology of Fishes (3)
Prerequisite: RNR 4145 or consent of instructor. Morphological, physiological and behavioral adaptations of fishes to their environments; relationships between fish biology and fisheries management.

RNR 4038 Forest Resource Economics (3)
Prerequisite: ECON 2030 or AGEC 2003 or equivalent. Economic theory applied to forest resources and their utilization; structure of the forest products market, demand of forest products, timber supply and stumpage price; resource conservation and endangered species protection; taxation and government programs; international trade of forest products; demand for non-timber resources.

RNR 4040 Fisheries Management (3)
Characteristics of fisheries; dynamics of exploited stocks; socioeconomic aspects of fisheries; fisheries management and research techniques; managing wild fisheries stocks.

RNR 4061 Special Problems in Natural Resource Management (1-4)
Prerequisite: permission of instructor. May be taken for a max. of 4 sem. hrs. credit. Credit varies by topic. Individual, independent, mentored, and directed study.

RNR 4062 Special Topics in Natural Resources (1-4)
Prerequisite: permission of instructor. May be taken for a max. of 4 sem. hrs. of credit when topics vary. Lectures and/or laboratories on selected topics not covered in other renewable natural resources courses.
RNR 4063 Internship in Natural Resources (1-4)
**Prerequisite:** permission of department.  
May be taken for a max. of 4 sem. hrs. of credit. Each hour of credit requires 40 hours of supervised experience. Supervised professional experience designed to integrate academic learning with professional practice.

RNR 4064 Wildlife Field Study in Africa (1)
**Prerequisite:** RNR 2031 or RNR 2072, RNR 2101 or RNR 2070 or equivalent, and RNR 3018.  
Permission of instructor. Seminar to prepare students for field study of wildlife research and management practices in southern Africa.

RNR 4101 Integrating Natural Resources Management, Policy and Human Dimensions (4)
**Prerequisite:** RNR 2039 or RNR 2071, RNR 3004 and senior status in School of Renewable Natural Resources. Students are responsible for paying for travel expenses associated with this course.  
2 hrs. lecture; 4 hrs. lab. Development of problem-solving skills for the management of renewable natural resources; application and integration of renewable natural resource management theory, policy, practices and human dimensions; analysis of management and policy decisions.

RNR 4103 Conservation Genetics (3)
**Prerequisite:** BIOL 1201 and BIOL 1202. Application of genetic theory to the management of renewable natural resources; emphasis on fragmented populations, endangered species, maintenance of genetic variation.

RNR 4106 Techniques in Limnology and Fisheries (2)
**Prerequisite:** junior, senior or graduate standing and permission of instructor. Students are responsible for paying for travel expenses associated with this course.  
1 hr. lecture; 1 hr. lab. Quantitative techniques in habitat, water quality and fish population assessment in freshwater ecosystems.

RNR 4107 Human Dimensions in Natural Resources (3)
**Prerequisite:** RNR 2039 or RNR 2072, 6 hrs. social science general education electives. Human behavior as related to management and use of natural resources.

RNR 4110 African Wildlife Ecology (4)
**Prerequisite:** RNR 2031 or RNR 2072, RNR 2101 or RNR 2070 or equivalent, RNR 3018, and RNR 4064. Permission of department. Junior, senior, or graduate student status. Two weeks of field practice. Students are responsible for travel expenses associated with this course. Field study of wildlife ecology, research, and management practices in southern Africa.

RNR 4145 Ichthyology (4)
Also offered as BIOL 4145. **Prerequisite:** BIOL 1202 and BIOL 1209. Field service fee.  
2 hrs. lecture; 6 hrs. lab and field work. Biology of fishes; evolution, classification and ecology.
RNR 4150 Forest Hydrology and Soils (3)
*Prerequisite:* AGRO 2051 or consent of instructor. 2 hrs. lecture; 3 hrs. lab. Principles of hydrology and soils with emphasis on forest environments. Forest soil development, role of forests in the hydrologic cycle, and the role of soil and water in natural resource management.

RNR 4900 Watershed Hydrology (3)
*Also offered as* ENVS 4900. *Prerequisite:* an introductory statistics course. 1 1/2 hrs. lecture; 1 1/2 hrs. lab. The principles of hydrology with emphasis on how natural systems are analyzed, modeled and used in management decisions; laboratory exercises involve hands-on experience with hydrologic data analysis, use of geographic information systems (GIS) and spatial modeling.