451 Biotechnology Applications for Plant Breeding and Genetics
Spring. 3(2-2) Interdepartmental with Crop and Soil Sciences and Horticulture. Administered by Crop and Soil Sciences. RB: (CSS 350 or ZOL 341) and CSS 441

452 Watershed Concepts
Fall, Spring, Summer. 3(3-0) Interdepartmental with Agronomy and Environmental Studies and Agriscience and Fisheries and Wildlife. Administered by Environmental Studies and Agriscience. P: ESA 324 and ZOL 355 RB: organic chemistry SA: RD 452

464 Forest Resource Economics (W)
Fall. 3(2-2) P: (EC 201 or EC 202) and completion of Tier I writing requirement. R: Not open to freshmen or sophomores.

465 Biotechnology in Agriculture: Applications and Ethical Issues
Fall of even years. 3(3-0) Interdepartmental with Crop and Soil Sciences and Horticulture and Philosophy. Administered by Horticulture. P: BS 161 or PLB 105 RB: CSS 350 or ZOL 341 R: Not open to freshmen or sophomores.

466 Natural Resource Policy
Spring. 3(3-0) Interdepartmental with Fisheries and Wildlife and Park, Recreation and Tourism Resources and Resource Development. Administered by Forestry. R: Not open to freshmen or sophomores.

472 Forest Science Research
Fall. 2 credits.

480 Woody Plant Physiology
Spring. 3(3-0) Interdepartmental with Horticulture. Administered by Horticulture. P: BS 162 or PLB 105 R: Not open to freshmen or sophomores.

484 Forest Soils
Fall of even years. 3(2-2) Evaluation and inventory of forest soils and landscape ecosystems. Physical, biological, and chemical processes. Nutrient cycling, diagnosis, and fertilization. Variability, geography, and landscape ecology.

824 The Economics of Environmental Resources
Spring. 3(3-0) Interdepartmental with Community, Agriculture, Recreation and Resource Studies and Anthropology and Political Science and Social Science. Administered by Community, Agriculture, Recreation and Resource Studies. SA: RD 826

828 International Development Theory and Practice
Fall. 3(3-0) Interdepartmental with Community, Agriculture, Recreation and Resource Studies and Anthropology and Political Science and Social Science. Administered by Community, Agriculture, Recreation and Resource Studies. SA: RD 826

829 Systems Modeling and Simulation
Fall of even years. 3(3-0) Interdepartmental with Biosystems Engineering and Fisheries and Wildlife. Administered by Fisheries and Wildlife. RB: STT 422 or STT 442 or STT 464

833 Applied Systems Modeling and Simulation for Natural Resource Management
Spring. 3(2-2) Interdepartmental with Biosystems Engineering and Fisheries and Wildlife. Administered by Fisheries and Wildlife. RB: (ZOL 851) or approval of department. R: Open to seniors or graduate students.

Population genetics, Genecology and Genomics
Fall. 3(3-0) Interdepartmental with Animal Science and Crop and Soil Sciences and Fisheries and Wildlife and Horticulture. Administered by Forestry. RB: Pre-calculus, basic genetics

Genetic processes underling patterns of molecular genetic variation. Genealogical approaches to the study of genomic diversity, phylogenetic reconstruction, and molecular ecology.

Population genetics processes underlying patterns of molecular genetic variation. Genealogical approaches to the study of genomic diversity, phylogenetic reconstruction, and molecular ecology.

852 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.

858  Gender, Justice and Environmental Change : Issues and Concepts  
Fall. 3(3-0) Interdepartmental with Anthropology and Fisheries and Wildlife and Geography and Sociology. Administered by Fisheries and Wildlife. RB: Background in social science, environmental science, or natural resources. Issues and concepts related to gender, ecology, and environmental studies. Key debates and theoretical approaches to addressing environmental issues from a gender and social justice perspective. Gender and environment issues and processes from a global perspective.

859  Gender, Justice, and Environmental Change: Methods and Application  
Spring of even years. 3(3-2) Interdepartmental with Anthropology and Fisheries and Wildlife and Geography and Resource Development 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 Resource Development. 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.

872  Parks and Protected Areas Policy and Management  
Spring of odd years. 3(3-0) Interdepartmental with Community, Agriculture, Recreation and Resource Studies. Administered by Community, Agriculture, Recreation and Resource Studies. SA: PRR 842 Historical and institutional approach to national park and wilderness policies. Variations in policy implementation across United States natural resource management agencies. International protected areas policies and issues. Relationship between policy and resource management.

885  Leadership in Natural Resources and Environmental Management  
Fall of even years. 3(2-2) Interdepartmental with Agricultural Economics and Fisheries and Wildlife. Administered by Fisheries and Wildlife. Theory and practice of leadership in natural resource and environmental management. Integration across disciplinary and jurisdictional divisions.

890  Special Problems  
Fall, Spring, Summer. 1 to 5 credits. A student may earn a maximum of 7 credits in all enrollments for this course. R: Approval of department; application required. Advanced individual study in an area of forestry.

891B  Selected Topics in Plant Breeding and Genetics  
Fall, Spring, Summer. 1 to 2 credits. A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with Crop and Soil Sciences and Horticulture. Administered by Horticulture. R: Open only to graduate students in the Plant Breeding and Genetics major or Genetics major. Approval of department. Selected topics in plant breeding.

892  Plant Breeding and Genetics Seminar  
Fall, Spring, Summer. 1(1-0) A student may earn a maximum of 8 credits in all enrollments for this course. Interdepartmental with Crop and Soil Sciences and Horticulture. Administered by Horticulture. Experience in review, organization, oral presentation, and analysis of research.

899  Master's Thesis Research  
Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 99 credits in all enrollments for this course. Master's thesis research.

923  Advanced Environmental and Resource Economics  
Fall, Spring, Summer. 3(3-0) Interdepartmental with Agricultural Economics and Economics and Park, Recreation and Tourism Resources and Resource Development. 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. Administered by Agricultural Economics. RB: (IEC 812A) and EC 812A and AEC 829 and FOR 866 and (AEC 829 or 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.

941  Quantitative Genetics in Plant Breeding  
Spring of even years. 3(2-2) Interdepartmental with Crop and Soil Sciences and Horticulture. Administered by Crop and Soil Sciences. RB: CSS 819 and STT 464 Theoretical and genetic basis of statistical analysis of quantitative traits using genetic markers. Computational tools for the study of quantitative traits.

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 Department of Forestry. Doctoral dissertation research.