Natural Resources Course Descriptions

30-103. INTRODUCTION TO ENVIRONMENTAL SCIENCE. 3:2:2
Course description goes here. Credit, three hours.

30-103. NATURAL RESOURCES AND PARK MANAGEMENT. 3:2:2
Course description goes here. Credit, three hours.

30-104. COMPUTER LITERACY. 3:3:0
The graduate in agriculture and natural resources must be computer literate. Training that utilizes application in agriculture or natural resources results in a higher degree of learning and a higher level of comfort. Credits, three hours.

30-105. BASIC ECOLOGY. 3:2:2
The study of the fundamental relationships between the living and non-living worlds, with special emphasis on man's place in nature. Prerequisites: Biology 100, 101, 102, or consent of instructor. Not offered for credit to majors in Biology, Agriculture, and Natural Resources. Two lectures, and one two-hour laboratory and field trips. Credit, three hours.

30-106. URBAN ECOLOGY 3:3:0
Ecological relationships of the urban environment, with special emphasis on the biological effects of domestic and industrial pollution, population density and urban resources. Prerequisite: Biology 100 or 101-102. Credit, three hours.

30-111. DENDROLOGY AND TREE IDENTIFICATION. 3:2:2
Systematic experience in the identification of principle forest trees of North America including special emphasis on the trees of the Delmarva Peninsula. Lectures, demonstrations and laboratories. Credit, three hours.

30-112. INTRODUCTION TO FORESTRY. 3:3:0
A study of the history and development of the nation's forest resources, forest policies: the management, development and protection of forests and related resources; and the training, experience, judgments and scientific tools needed to effectively manage these natural resources. Lectures, demonstrations and laboratory. Credit, three hours.

30-202. MICROCLIMATOLOGY. 3:3:0
A study of the climate near the ground. Influence for vegetation, snow, fog and topography on microclimates. Agricultural and medical implications. Microclimate of cities. Offered in alternate spring semesters. Credit, three hours.

30-203. INTRODUCTION TO URBAN FORESTRY. 3:3:0
A study of the management of tree communities in and around human settlements ranging from small rural communities and suburban neighborhoods, metropolitan parks and downtown areas. Lectures, demonstrations and laboratories (including weekends). Offered in alternate years. Credit, three hours.

30-205. ECOLOGY. 4:3:2
The study of organisms in relation to their environment. Three lectures and one three-hour laboratory period per week. The course includes 3 weekend field trips. Offered in fall semesters. Prerequisites: Biology 101-102, or consent of instructor. Credit, four hours.

30-261. AQUACULTURE. 3:3:0
A study of the farming and husbandry of fish and other aquatic organisms throughout the world, with emphasis on North American species and practices. The laboratory includes hand-on activities and field trips to production sites. Prerequisites: General Biology 102, Ecology 205, Chemistry 102, or consent of instructor. Credits, three hours.

30-311. MAMMALOGY. 3:3:0
The identification, classification, distribution, evolution, and life history of mammals. Prerequisites: Biology 100, 101-102, or consent of the instructor. Credit, three hours.

30-312. ORNITHOLOGY. 3:2:2
A study of the field identification, ecology, and biology of the birds of the Delaware-Maryland-Virginia area. The course includes weekly field trips. Prerequisites: Biology 100, 101-102, or consent of the instructor. Credit, three hours.

30-313. LIMNOLOGY. 3:2:2
A study of the biological, chemical, and physical factors in streams and lakes, and the effects of these factors upon water and upon aquatic organisms. Prerequisites: Biology 101-102 and Chemistry 101-102, or consent of the instructor. Two hours lecture and two hours laboratory per week. Credit, three hours.

30-314. ICHTHYOLOGY. 3:3:0
The identification, classification, distribution, evolution, and life history of fishes. Prerequisite: Biology 201 or consent of the instructor. Credit, three hours.

30-321. BIOMETRICS. 3:3:0
The application of statistical procedures to agriculture and natural resources. Data presentation and distribution measurements will be studied. Probability, simple correlation - regression, and analysis of variance will be included. Prerequisites: Mathematics 121 and 122 and Biology 101 and 102. Three one-hour lectures. Credit, three hours.

30-349. SCIENTIFIC WRITING. 1:1:0
Designed to inform students about writing in science, the nature of these presentations, their reliability, and critical considerations for the review, acceptance and use of such. It teaches how to write, how to analyze data, report results, as well as how to present such data in accurate and credible scientific reports, reviews and journal articles, among others. One one-hour lecture per week. Credit, one hour.

30-350. PROBLEMS TERRA ECOLOGY. 1:1:0
Discussion of topics of current interest. Presentation of student papers. Lectures, discussions, films, field trips. Credit, one hour per semester.

30-400. INTERPRETING THE NATURAL ENVIRONMENT. 3:2:2
Course description goes here. Credit, three hours.

30-401. SOIL AND WATER MANAGEMENT. 3:2:2
A study of the theories and practices employed in managing soil and water. Coordination of soil and water uses to improve productivity and to prevent erosion depletion. Effects of pesticides, pollution and drought. Two one-hour lectures and one two-hour laboratory per week and an all-day field trip. Prerequisites: Natural Resources 205 and Agriculture 209 or the consent of the instructor. Credit, three hours.

30-402. VEGETATION MANAGEMENT. 3:2:2
Course description goes here. Credit, three hours.

30-403. WILDLIFE MANAGEMENT. 3:2:2
A study of the theories and applications of animal ecology pertaining to the management of natural populations and communities. Life history studies of selected wildlife species. Relationships of wildlife to ecosystems, including effects of pollution, pesticides, and habitat conditions. Two lectures and one two-hour laboratory. Offered in alternate spring semesters. Prerequisites: Natural Resources 205 or consent of the instructor. Credit, three hours.

30-404. FISHERIES SCIENCE. 3:3:0
A study of the environmental and biological factors related to the physiology and behavior of fishes. Prerequisites: Natural Resources 205, 321, or consent of the instructor. Credit, three hours.

30-405. PRINCIPLES OF FISHERIES MANAGEMENT. 3:3:0
A study of the capacities of aquatic environments required by fishes with emphasis on management problems typical of selected environments. Prerequisites: Natural Resources 205, 314, and 404 or consent of the instructor. Credit, three hours.

30-431. ECOSYSTEMS. 3:2:2

Course description goes here. Credit, three hours.

30-441-442. SENIOR RESEARCH PROJECT. 6:0:12
An opportunity to undertake a research project in Agriculture and Natural Resources. Prerequisite: Open to students with a 3.125 cumulative average in Agriculture and Natural Resources, overall cumulative average of 2.75, and senior standing in Agriculture and Natural Resources. Credit, six hours.

30-452. ENVIRONMENTAL EDUCATION WORKSHOP. *
Opportunity for practical experience in development and implementation of environmental education concepts from pre-school to adult. May be elected whenever offered. Prerequisite: consent of instructor. Credit, one to three hours per semester. *Variable credit.

30-455. POPULATION-ENVIRONMENT CURRICULUM, K-12.
The integration of a conceptual framework for population-environmental studies in school curriculum as a part of a program in environmental studies. Prerequisites: consent of instructor. Credit, three to six hours.

30-456. WETLANDS BIOLOGY. 3:3:0
A broad overview of the ecological structure and function of wetlands environment, emphasizing comparisons of different wetland types in terms of hydrology, soils, biogeochemistry, biota, and ecological processes. Human interactions with wetlands will be examined in terms of wetlands values and functions, delineation, classification, inventory, regulation, mitigation, compensation and management. Lectures, demonstrations, laboratories and two weekend field trips. Prerequisites: Ecology 205 or consent of instructor. Offered in alternate years. Credit, three hours.

30-462. ENVIRONMENTAL HEALTH. 3:2:2
Course description goes here. Credit, three hours.

30-464. NATURAL RESOURCES INTERNSHIP.
Designed to give students first-hand, career related experience in a local state, or federal agency or organization. Internships must be planned with a faculty coordinator and a Field Supervisor in the semester prior to the actual placement. Qualified agency staff provide on-site supervision of the student, while the faculty coordinator monitors the Intern's progress and (in conjunction with the Field Supervisor) evaluates the Intern's work. Prerequisite: Junior or Senior Standing. Credit, four to eight hours.

30-465. MARINE BIOLOGY. 3:2:2
A broad overview of the biota of marine environments, examining the ecological structure and function of oceanic, coastal and estuarine habitats. Aspects of physical, chemical and geological oceanography will also be covered, pertinent to biological communities and adaptations. Lectures, demonstrations, laboratories and two weekend field trips. Prerequisite: Ecology 205 and consent of instructor. Offered in alternate years. Credit, three hours.

30-466. ENVIRONMENTAL TOXICOLOGY. 3:2:2
A course to integrate biology and chemistry into a useful approach to poisons and pollutants and their control. Methods are developed to express and measure toxicity, predict risks, and illustrate how laws and regulations are developed to communicate risks and control hazards. The students will learn to express the complex mechanics of statistics and to reduce armacodynamics to simple graphics representations. Lectures, demonstrations, laboratories and weekend field trips. Prerequisites: Chemistry 101-102 and Ecology 205. Offered in alternate years. Credit, three hours.

30-469. ECOLOGICAL LAND USE. 3:3:0
Theory and application of environmental planning from the standpoints of public and private interests. Major topics include terrain analysis and natural and social environments. These serve as the framework upon which the results of change are analyzed and provide suitable foci for the examination of case studies which are examined. Lectures, demonstrations, laboratories and weekend field trips. Prerequisite: Ecology 205 and Soils 208. Offered in alternate years. Credit, three hours.

30-472. AIR AND NOISE QUALITY. 3:3:0
A survey of air and noise quality factors in outdoor and indoor environments with emphasis on limiting the impacts on humans and other biological subjects. Basic techniques of monitoring, control, and mitigation, with special consideration of the "sick building syndrome" will be addressed. Lectures, demonstration, laboratories, and week-end field trips. Offered in alternate years. Credit,

three hours.

30-474. INDUSTRIAL HYGIENE. 3:3:0
The fundamental study of ergonomics, chemical handling, ionizing radiation, environmental stress, and occupational diseases. Recognition of work-place hazards and safety limits; the importance of personal protection and ventilation systems. Offered in alternate years. Credit, three hours.

30-475. ENVIRONMENTAL AND WILDLIFE LAW. 3:3:0
A study of the development and enforcement of environmental law. Emphasis on the history of the molding of national and regional environmental policy concerns. Synoptic review of major international, national, regional, state and local environmental laws. Prerequisite: Ecology 205. Offered in alternate years. Credit, three hours.

30-484. ADVANCED WILDLIFE BIOLOGY. 3:2:2

Advanced study of wildlife populations including the application of computers to field data analysis and theoretical models. Research techniques of project planning, record keeping, wildlife literature review and scientific writing. Environmental management using remote sensing and reconnaissance field mapping, habitat analysis and evaluation, sustained yield, and wildlife damage and control. Prerequisite: Wildlife Management 403. Lectures, demonstrations, laboratories, and weekend field trips. Offered in alternate years. Credit, three hours.

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