

Master's Program in Natural Resources Course Descriptions

30-502. HABITAT MANAGEMENT AND RESTORATION: THEORY.

An exploration of advanced theory and methodology for the establishment, maintenance and restoration of aquatic and terrestrial habitats. 3 credit hours.

30-503. HABITAT MANAGEMENT AND RESTORATION: PRACTICE.

Application of theory and methodology presented in the theory course to field projects involving data collection and interpretation. 3 credit hours.

29-504. ADVANCED AQUACULTURE.

Advanced aquaculture will include environmental, social and legal considerations; various culture systems; water quality management (as related to organism cultured and system type); feeds and nutrition; health management; and economics and marketing. The course will include literature research and research projects as well as assigned laboratory work. Three hours lecture and one two hour laboratory per week. 4 credit hours.

29-505. AQUATIC ANIMAL PHYSIOLOGY.

A study of the basic physiological systems in fishes and crustaceans and their relationships to development, growth and reproduction. Three hours lecture and one two hour laboratory per week. 4 credit hours.

29-506. EXPERIMENTAL DESIGN.

A study of the use of advanced experimental designs in planning, analyzing and interpreting experimental data. Three one-hour class periods per week. Prerequisite: 3 credits in statistics/biometrics. 3 credit hours.

29-507. RESEARCH PROBLEM IN AREA OF SPECIALIZATION.

A special problems course designed to provide research training in the area of the students field of study and specifically related to the needs of their research program. 3 credit hours.

29-508. DEPARTMENT SEMINAR.

A seminar, meeting once per week with faculty and student presentations on their research and/or other relative scientific topics. 1 credit hour.

29-642. ADVANCED WILDLIFE BIOLOGY.

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 control. Prerequisite Natural Resources 403. 3 credit hours.

29-643. MARINE BIOLOGY.

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. Prerequisites: Natural Resources 205 or consent of instructor. 3 credit hours.

29-644. WETLANDS BIOLOGY.

A broad overview of the ecological structure and function of wetlands environments, 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, regulations, mitigation,

compensation, and management. Lectures, demonstrations, laboratories, and two weekend field trips. Prerequisites: Natural Resources 205 or consent of instructor. 3 credit hours.

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